

PHILADELPHIA MEDICAL TIMES.

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VOL. XVIII

CLINICAL LECTURE.

ON TYPHOID FEVER IN CHILDHOOD.

BY F. FORCHHEIMER, M. D.,

Professor of Physiology and Diseases of Children, Medical College of Ohio; Physician to the Cincinnati and Good Samaritan Hospitals, and Home for Sick Children.

[Delivered at the Cincinnati Hosp. Jan. 25, '88.]

GENTLEMEN: I shall point out to you to-day the peculiarities of typhoid fever as it appears in children. It is unnecessary to tell you that most diseases present differences in the way they affect children and adults. In this disease, as in most others, the younger the subject the greater the difference in its manifestations and course. If we study the disease in the child as it appears in the adult, we will often fail to recognize it as being at all the same.

The history of typhoid fever in children is quite recent. You will be astonished to hear that only so lately as 1872 and 1873, it was taught that typhoid fever does not exist in children and in infants. Do not infer that this was generally accepted by the profession; yet it was the teaching of the late Alonzo Clark, of New York, who said typhoid fever is not found in children and infants; it is only the disease mistaken for intermittent fever. The course

of the disease in these children was not thoroughly understood, yet long before this, post-mortem examinations had shown the presence of typhoid fever lesions in children and infants. This was the view in this country and among very excellent authorities abroad. Those who admitted that it did exist, considered it to be very rare and that it was generally taken to be something else.

In some epidemics children suffer to a great extent. There is no good explanation for this. The present epidemic in this city is one in which many children have been affected. There are at present, 30 cases in our hospital, of which 7 are typhoid fever. More than nine-tenths of all my cases of typhoid fever have been children; but of course my practice is largely among children. There are other epidemics in which the children are very rarely affected, yet it is quite possible that in some of these they are overlooked.

The house physician will now read the history of the case:

E—C—, aged 12, colored, of good physique, was admitted January 22, 1888. He had had measles but no other disease. He was taken sick January 15, with general malaise, pain in the abdomen and diarrhoea. This condition continuing, he came here. At present he has pain over the descending colon.

There has been no hemorrhage, vertigo or epistaxis. The temperature is 103.5° and the pulse 120. The bowels are loose, micturition normal, lips dry, tongue coated and offensive. Abdominal inspection showed it to be moderately distended, few rose spots, gurgling in the iliac fossa but no tenderness. Urine normal, specific gravity 1013, color reddish, acid reaction, some albumen, no sugar or bile. He was ordered first a bath in lukewarm water then given whiskey and dilute muriatic acid. January 23, pulse 120, and temperature 103, baths repeated.

You have heard the history of this boy. Note well that he was taken sick on a certain day, that the date is mentioned. This is probably all we will get out of the boy. In the majority of instances the disorder begins suddenly in children, which is one of the characteristics of the disease. When the adult with typhoid fever is first seen, the practitioner gets an indefinite history as to the commencement of the disease, probably the patient has been feeling badly for a week or ten days. If called to see a child we generally have this statement: the child was taken sick yesterday evening and was taken so suddenly and seriously ill, that the doctor was called during the first two and a half hours. The child may have been playing around in the morning, languid in the evening and the next morning be quite ill. This very rarely occurs in the adult.

The child complains of pain in the stomach. When asked to locate the pain, he will point indefinitely over the region of the epigastrium. Careful examination to localize the pain, does not find the abdomen sensitive at all. Any pain in the abdominal organs is referred to the epigastrium. Tenderness may not be found there, but on deep pressure it will be elicited in the iliac regions. It is only localized by careful examination and may require quite deep pressure. We can often only tell that there is pain by the child's crying or frowning. Another symptom in children is insomnia in the beginning. This may alternate with drowsiness which is very marked, the child may not sleep at all at night, and yet doze all day. As a rule the child is sleepless at night and somnolent during the day.

Epistaxis is common, but in a great many cases is absent. In this epidemic only five per cent. of my cases had epistaxis. Not one in the seventy cases under my observation had serious hemorrhage. This is the case as a rule, but in some epidemics, epistaxis is severe and characteristic. The nose is, as a rule, dry, yet not dry enough to cause sneezing, which is consequently absent in most cases. Liebermeister says: "As rule, if sneezing is present there is no typhoid fever." The exceptions to this rule are notably present in this epidemic, I have noticed it more than ever before.

Condition of the tongue is the same as in adults, large, coated, red borders with red line in the centre. We may find leptostrich and the remains of food coating the tongue. I have no explanation for this condition and would not be willing to make a diagnosis on the state of the tongue alone.

Cough due to bronchial catarrh, is present in nearly all cases.

A great many children and infants suffer with constipation. I am fully aware that in making this statement, I differ from many authors. Diarrhoea occurs, as the rule, during the course of the disease, but it is generally not very severe, with the peculiar pea-soup stools with more or less pain before the passages, sometimes after. Constipation, however, is the rule in children, and not diarrhoea. Enlargement of the spleen occurs in a majority of cases, though it is not so important in the diagnosis as in adults. There are well authenticated cases where the spleen is examined post-mortem and found changed in structure though not in size. Henoch reports quite a number where the spleen was normal. This has also been my experience.

Vomiting is present in the inception in a great majority of cases very frequently, and we are sometimes at a loss to tell what we are dealing with on this account.

The changes in the intestinal tract are by no means so severe as in the adult and are altogether different. The changes in Peyer's patches are not so severe, intense, deep; not so extensive, more localized; the lesions do not, as a rule, extend into the large intestine.

The child consequently suffers little with hemorrhage from the bowels. Only one out of my seventy cases had hemorrhage, and not one case of perforation occurred.

The great characteristic in children, is that typhoid fever produces deep and profound impressions on the nervous system. We have somnolence, wakefulness, headache, also changing of the disposition of the child. Those who were studious and agreeable before, are completely changed. After recovery, they remain nervous, fidgety and shy, while sometimes the unstudious child becomes the reverse after the disease. This unbalancing of the nervous system lasts a number of years in some instances.

The pulse, as a rule, bears no relation to the height of the temperature. With a temperature of 104.5° , the pulse often is not more frequent than with a temperature of 102° . This is one reason why the disease is not more frequently fatal in children. The heart is not so severely affected.

Complications are not so frequent in children. The proportion was very small in this epidemic. One complication which occurred in this epidemic was, when the fever was breaking up, or had broken up, the child was all of a sudden attacked with aphasia. We have no explanation of the aphasia of typhoid fever. Post-mortem examination shows no change. It is probably there but it is not discovered. This aphasia lasts a week or ten days, and the child begins to talk again. One sequel of typhoid fever which occurs in children and not in adults, is tuberculosis. The case is protracted for six, eight, ten weeks or three months, and, finally, the child dies of tuberculosis of the intestines, acute miliary tuberculosis or tubercular meningitis. The only cases of typhoid fever in children which have died, have been cases of this kind, in my experience.

The prognosis of this disease in children is extremely favorable. In seventy cases I have not lost one. The only exception to this general rule is the period of the newly born. During the first two months the mortality is very great, according to the statement of most authors, but I do not believe that it is correct. Up to the age of twelve years, the mortality is very good, hardly over five per cent. The best results which we

have had from this in adults is five per cent., but it is frequently higher than this. Usually in this hospital it is between six and seven per cent.

Treatment.—I believe in the possibility of aborting typhoid fever with calomel. I have done it, I believe, over six times in this epidemic, and think I have done it before, but I cannot prove it. If I get a case before the fifth or sixth day I always give a dose of calomel, and a large one, in some instances repeating it. I then follow this up with rather full doses of antipyrine, because it lessens pain, and seems to have an antiseptic effect. I consider it of very great importance to have two beds, one for the day and one for the night. I choose the best room in the house for the sick-room, having no hesitancy even in taking the parlor, first removing all the bric a-brac. The room should be one well lighted and well ventilated, and near the water conveniences. The diet should be absolutely fluid. It is not so particular that it be albuminous, but absolutely fluid, no bread, no toast. I have seen hemorrhage caused by bread. The patient will often beg for something solid to eat. We can give them tolu to chew, as what they miss in the fluid food is the customary chewing. I frequently give

R	Acidi hydrochlorici, dil.	1.00
	Syrupi rubi idei.	15.00
	Aque.	45.00

M. S.—Take one teaspoonful every hour or two.

I employ sustaining measures, including whiskey. In the antipyretic treatment we want to avoid everything which will cause a collapse. I never give cold baths to children, on account of collapse. I use the lukewarm bath or cold wrap, and prefer the former.

If the bodily heat reaches 103.5° in the axilla, it is the rule to give a bath, which will bring it down to 101° . An evening temperature of 103° , a bath will bring down to 99.5° . Evening temperature of 104° , bath will bring down to what I show you on the chart. You see this zigzag curve. You can say what stage of the disease the patient is in from the remission of the fever. Often we can say that the patient is in the third week. We cannot say for sure because of the age of the patient. The pulse, you see by reference to the chart, ranges 120

beats with a temperature of from 99° to 104.5° . If we feel the pulse we do not notice much difference in it. The whole course of the temperature in children is brought into less time than in adults. The four weeks are compressed into three. The first week we have ascent usually not very well marked. In the fourth week we have descent usually well marked. Frequently the continuous fever lasts longer than a week. This is not the rule, but it does occur. A great many have a temperature of 103.5° on the fifth day. This condition may last a week or ten days, or perhaps longer. The temperature in the third week may come down suddenly, or may come down gradually.

ORIGINAL COMMUNICATIONS.

ACUTE STRANGULATED RUP- TURE.

BY W. EVERETT SMITH, A.B., M.D., HARV.,
of Boston, Mass.

THE pathology and treatment of acute, strangulated rupture, and by this I mean the strangulation of a rupture upon its first descent, differs very materially from that of a strangulation of a long-existing rupture, and demands essential modifications of the ordinary treatment. I shall describe, very briefly, only such variations as I have learned by experience to be of vital and practical importance.

The natural tendency of all ruptures to become inflamed and so fixed to the surrounding parts that their reduction is difficult, if not impossible, without the aid of a serious operation, is increased by causes that often seem too slight to be worthy of particular notice.

It may be that the patient is troubled with gaseous distention of the bowels,* or with constipation or diarrhoea; he may get over-tired some day, or may irritate the rupture by long-continued efforts to reduce it; on the other hand, the spring of his truss, if he wears one, may be too stiff, so that the pad inflames the groin, or the truss itself may not fit, or may not be perfectly adjusted. In any event, the bowels may become strangulated and speedily slough unless

* It is not uncommon in New England to see an innocent-looking rupture become suddenly strangulated after a hearty indulgence in our Saturday evening supper of baked beans.

immediate relief be given by a careful surgeon who has had experience in the matter.

In umbilical rupture a strangulation is a rare occurrence, and is almost always in the chronic form. In inguinal ruptures, although strangulation is not uncommon, the acute variety is rather rare. When acute symptoms do occur, they are in the congenital, rather than in the acquired forms of the disease. Femoral ruptures are the most likely of all to become strangulated, and it is in this variety that we see the largest number of acute strangulations. As a general rule, moreover, it may be said that a small protrusion is more easily strangulated, and more frequently upon its first descent, than is a large one, and an old one more often than a recent (or acute) one, although in the latter the symptoms are more urgent and more dangerous. In other words, the larger the rupture, the greater the inconvenience; but, the smaller the rupture, the greater the danger to life.

And this statement is as true clinically as it is pathologically. The protrusion of a small rupture is often unnoticed both by patient and physician. Consequently its first symptoms are neglected or hastily assumed to indicate only an ordinary attack of cholera morbus. They are to be distinguished, however, from the pains of cholera morbus by their severity, coupled with the rapidity with which they are followed by an extreme degree of nausea, vomiting, collapse, pain at the navel and constipation. This rapid sequence of symptoms is not, as a rule, characteristic of cholera morbus, but is, on the contrary, very prominent in strangulation of the bowel, especially in acute or recent forms.

At times, and particularly in ruptures of long standing, the only evident symptom is the pain at the navel.* Now,

* In the *London Lancet* of Jan. 14, 1888, are notes of a case of strangulated hernia, with entire absence of local pain, reported by Mr. O. B. Shelswell. There was severe abdominal pain, especially on the left side and around and above the umbilicus, with vomiting and constipation; yet the hard and irregularly-shaped protrusion in the groin was without pain. The rupture had existed for three weeks. Even taxis produced no pain. Such a history sometimes occurs in acute strangulations also.

although this pain is not peculiar to strangulated rupture, but may also occur whenever there is intestinal inflammation, it is a valuable guide-board; and whenever present, should not be treated slightly. It was absolutely the only symptom that once led me to diagnose an acute strangulation, even though the patient, as well as her attendant physician, did not have a suspicion of the existence of a rupture. As a rule, however, this pain in cases of acute strangulation is accompanied by a marked tenderness in the groin over the seat of the hernial protrusion; with such symptoms, there ought to be no doubt or delay in the diagnosis.

Yet I fear these warnings of nature are too often unheeded by physicians, especially if the patient gives no history of a rupture or does not suspect that he has one. In such cases it is not uncommon for the agonizing pain to disappear gradually while the collapse will still remain. This relief from active pain quiets for a time the anxieties both of physicians and of friends, but it is not a happy sign. It is unmistakable evidence of the extremest danger: the strangulated bowel has begun to mortify and slough.

For the very reason that, whenever the reduction of a rupture becomes a work of skilful art, the life of the sufferer is so seriously threatened that the delay of every moment adds danger, the case must be treated intelligently and considerably from the very beginning. Although constipation is apt to be an early symptom, a purgative is in no case admissible. Nor is the local application of ice so efficacious or advisable in recent as in old cases, where the symptoms are less acute and the nervous irritability less intense. There must be no kneading or unnecessary handling of the parts. If the case be an acute one, it is advisable not to attempt to reduce the protrusion until a sufficient relaxation of the parts has been produced by either a hot bath, a full dose of opium, or the inhalation of ether.

The proper position of the body during the taxis is a very important point, but is too often disregarded. The pelvis should be raised, the shoulders elevated, and the legs flexed and turned

inwards, in order to relieve as much as possible the natural tension of the muscles. A very useful manœuvre which has at times succeeded in producing the requisite amount of relaxation when all other positions have failed is to flex the thigh sharply toward the shoulder of the opposite side.

The hard and fast rule laid down in the text-books that taxis is never to be employed for more than two to five minutes, however, requires a certain modification. Unquestionably in acute strangulations, and especially when a femoral rupture is involved, any long-continued manipulation is extremely hazardous, and cannot be too strongly condemned. But in ruptures of long standing the parts have so lost their delicate sensitiveness that taxis can safely be continued for a much longer period than in cases of recent origin.

In those cases where taxis has succeeded in effecting a reduction of the strangulated protrusion, the vomiting will cease and the dragging pain be at once relieved. A pad should now be placed over the hernial rings until a truss can be applied and worn. When this precaution has been neglected, especially after acute strangulations, many a case has become re-strangulated with symptoms more distressing and far more alarming than at the original strangulation. Particularly also after acute strangulations, the patient should be kept quiet in bed for a few days, while the diet should be sustaining but not solid. Milk is an eligible form of nutriment. Alcoholic stimulants inflame the parts, are to be used with the extremest caution, even in cases of collapse, and had better in the majority of cases be dispensed with altogether.

In umbilical strangulations, two-thirds of the cases are readily reducible without any operative procedure. In strangulations of inguinal protrusions, the more chronic the rupture the more successful the taxis. Acute cases are not often thus reduced. In femoral strangulations, on the contrary, although the taxis is as a rule even less successful than in inguinal varieties, it sometimes succeeds in recent (acute) cases, but rarely in the chronic forms.

When taxis has been attempted and has failed, nothing but an immediate

operation is justifiable. Death stares in the face every moment of delay. The operation, although formidable, is not in itself dangerous. Far from being the last and long-delayed resort, as it often is, it ought in many cases to be one of the first expedients thought of. Especially is this true when hiccup is markedly present, or when in femoral varieties faecal vomiting has existed for some hours; when, in other words, there is evidence or suspicion that gangrene of the intestines is taking place.

The more acute the strangulation, the more likely is the surgeon to find a diffused necrosis or slough, even after the lapse of a very few hours. Hence, after the hernial sac has been exposed to view by herniotomy, the question arises whether it shall be opened or shall, together with its contents, be returned entire within the abdomen.

Whenever taxis has been applicable to the case, but has failed, the rupture may safely, and had better, be reduced without opening the sac, provided the operation had not been unduly delayed. When, on the contrary, taxis has not been admissible—that is, when the strangulation has been of considerable duration, the symptoms severe and faecal vomiting persistent—or when, by the sudden collapse of the tumor without its reduction, we are led to fear a perforation of the bowel, the sac should be laid open and the condition of its contents examined.

If the bowel be in a favorable, or even in a doubtful condition, it should be returned within the abdominal cavity without any officious handling. If, however, it is recognized as dead, all thought of reduction had better be abandoned, and the intestine left to pass into an artificial anus.

A strangulated omental rupture presents the same symptoms in a less acute degree as are seen in strangulations of intestinal ruptures, but admits of much freer manipulation. Where omentum is involved in acute strangulation, it can safely be returned within the abdominal cavity after the operation of herniotomy has been performed. When, in chronic cases, it is in large quantity or is suffering necrosis, it would be well to ligate it as near the end of the sac as possible and cut it off, taking care not

to disturb adhesions which may have formed. Simply to cut off the omentum and tie or twist the bleeding vessels is a highly dangerous proceeding. The omentum is very vascular, and its minute vessels bleed so freely that they have been known to cause a fatal hemorrhage. In femoral strangulations it is quite the rule to find sacs of omentum. They are never to be returned to the abdomen unopened.

THE INDUCTION OF PREMATURE LABOR IN THE ALBUMINURIA OF PREGNANCY, WITH EXTREME GENERAL DROPSY.*

BY F. O. DONOHUE, M.D.,
of Syracuse, N. Y.

THE original application of the operation for the induction of premature labor in the extreme anasarca accompanying pregnancy is somewhat obscure. We are told that Macauley, of London, performed it in 1756; we next hear of it in Germany in 1804.

It met with considerable opposition on the continent, especially in France. The objections were based mainly on moral and religious grounds, and even to-day certain classes are opposed to it for the same reasons. Notwithstanding all this, it has had the endorsement and sanction of some of the most eminent members of our profession.

There are no patients which give the physician more anxiety than those which in the seventh or eighth month of pregnancy present unmistakable evidences of nephritis with general dropsy. If it can be ascertained to a certainty that the fetus in utero is dead, then the way is clear; but on the other hand, if it be known that the fetus is alive, what course should then be pursued? Authorities, as well as our own experience, teach us that the risks to the mother from the operation are very small as compared with those which would be encountered in the event of puerperal convulsions supervening, or chronic Bright's disease becoming established. In the seventh or eighth month of utero-gestation the child is viable, and

* Read before the Third District Branch of the New York State Medical Association.

as the albuminuria places its life in hazard, it would seem that the operation is indicated, and is justifiable in the interests of both mother and child. We are not warranted in watching and waiting, and relying on medication to avert the anticipated convulsion, (which is pretty certain to supervene), and announce the sad tidings that the system can no longer tolerate the poison in the circulation; then to begin systematic bleeding and purging of the patient, to be followed, in the majority of cases, by fatal issue. I respectfully submit the following case, with its attendant circumstances, for your consideration.

On March 20, 1886, I was summoned to Mrs. Catherine M., aged 36, who was then advanced in the seventh month of her seventh pregnancy, she having previously given birth to six children at full term. On this occasion she presented a pitiable spectacle. Her lower limbs were enormously distended by dropsical effusion, as was also her body, especially the abdomen; her face and hands were also oedematous; an examination of the urine revealed the presence of a large quantity of albumen. Careful auscultation could not detect the sounds of the fetal heart; but in this I could not be positive, as the greatly distended abdomen precluded the hearing with any degree of certainty. I very candidly stated to my patient my opinion of her condition and the cause which produced it; that she need expect little or nothing from drugs to relieve the dropsy. In short, I told her the safest way out of her present dilemma was to submit to the induction of premature labor, by which the pressure would be removed from the already congested kidneys and the dropsy would in all probability disappear. To this she did not consent; but requested me to try the effect of medicines, which I did for several days, placing her under the regular treatment of salines, diuretics and hydagogues. The general anasarca, instead of diminishing, increased apace. I finally had the opinion of my very highly esteemed friend, Dr. Alfred Mercer, who, after carefully examining my patient, concurred in advising the induction of premature labor as the

only means of saving her life, and possibly that of her child.

Accordingly, on the first day of April, 1886, after receiving the consent of the patient and her husband, I proceeded to dilate the os, which was quite patulous, by digital manipulation, after having previously introduced the uterine sound, puncturing the membranes and allowing the liquor amnii to drain off. In the course of several hours uterine contractions supervened with considerable vigor, the head descended into the pelvic cavity; when the progress of the labor was impeded by the rigidity of the perineum. The uterine contractions at this time, too, seemed to falter. Seeing that my patient's strength was failing, I came to her relief by applying the forceps, and soon delivered the child, which proved to be as dropsical as the mother. It had evidently been dead some time, as it was partially decomposed, the epidermis having peeled off to a considerable extent. After waiting about half an hour for the uterus to contract, with the practice of Credé's method—which I always employ in the delivery of the placenta—seeing that it was not likely to be expelled, an examination per vaginam was made, and the placenta was found to be firmly adherent to the uterine wall. I then inserted my hand into the uterine cavity, and found the adhesions so extensive that the administration of an anaesthetic was deemed necessary for its delivery. I placed my patient under the influence of ether, and introducing my hand high up in the cavity of the womb, I vainly sought a point from which to peel off the edge; but the adhesions were so firm, and the fusing of the placenta with the uterine wall was so perfect that every effort to detach it in its entirety proved futile.

I now resolved upon delivering it piecemeal, and proceeded to remove portions varying in size from a walnut to that of a small egg. After working assiduously for the greater part of an hour, I succeeded in removing the entire mass piece by piece, and made a careful examination of the entire uterine wall, to satisfy myself that no portion thereof remained.

I have repeatedly extracted retained placenta, but the amount of effort re-

quired in this case exceeded anything I ever encountered in the lying-in room before or since.

I have a record of seven hundred confinements attended by myself in private practice in the past ten years, including craniotomy, version, embryotomy and high forceps operations; but never have I met with a case which gave me so much trouble. Moreover, I had no assistance, save that of a very intelligent woman, who happened to be present. Many of you will ask, why did you not call in professional assistance? To this I make answer that none was needed until the delivery of the afterbirth, and then time was too precious to waste in sending for help, as in all probability my patient would have become exsanguinated before assistance could arrive.

After taking the ether from her, she went into a state of partial collapse, and became pulseless at the wrist. I had almost made up my mind that all was over so far as she was concerned. I began administering hypodermics of brandy, and soon had the satisfaction of seeing her rally. Her convalescence was slow; vaginal and intra-uterine injections of carbolized oil were used twice daily. The treatment otherwise consisted of tr. ferri chlor., with milk-diet. In about six weeks she was able to sit up. She is now practically as well as ever. She has not since become pregnant and I trust she never will.

In looking up the literature on the placenta and its diseases, I find considerable disagreement as to the cause of adhesions. Some eminent authorities —among whom are Simpson, Rokitansky, Scanzoni—suppose that inflammation of the placenta followed by exudation is the cause of the formation of connective tissue. Others equally as eminent — among whom are Braun, Schröder and Spiegelberg—regard this placental inflammation as not a true form of placentitis, but of chronic endometritis, affecting the mucous membranes of the uterus primarily and only extending to the foetal structures incidentally. Hagar and Maier describe it as a form of interstitial endometritis, in which the villi are agglutinated and compressed by the hyper-

trophic elements and the development of new connective tissue. Whichever be correct of these views as to the cause of placental adhesions, it is obvious that there were sufficient pathological changes present in the placenta in this case to cause intra-uterine death; and that the fetus having died, it became, with the secundines, a macerating mass in the uterus, imperiling the life of the mother and rendering its removal imperative.

I shall not further theorize on this subject; but I firmly believe that, had this woman been left to the natural full term period, without interference, she would have found an untimely grave, instead of living, and being now the centre of a happy family.

A CASE OF HERNIA OF THE BRAIN AND FUNGUS CEREBRI.

BY ELIAS LESTER, M. D.

Of Seneca Falls, N. Y.

The notes of the case are as follows: On April 24, 1886, Andrew Murphy, a laborer, was removing sections of pig-iron which were being sent down a chute at an angle of 50°, for a distance of forty or fifty feet. As he was stooping to pick up a piece, one weighing about fifty pounds hit him on the head, breaking in the left parietal bone, a little to the left and posterior to the apex of the cranium. He was an Irishman by birth, about forty-five years of age, of temperate habits, and in good health at the time of the injury. I found him insensible, some hemorrhage, and a cup-shaped depression in the plates of the skull about three inches long by two inches wide. I removed the depressed bones and found the blood was oozing into the cavity. He soon regained consciousness after the removal of the bones. The wound was dressed open, so that the blood could drain off. I applied cold water cloths. The next day he was unable to raise his right foot, except with considerable exertion, and the paralysis increased from day to day and extended to his right arm. He had retention of urine, required a powerful dose of physic to move his bowels, slept most of the time for the first week, suffered no pain and when aroused talked intelligently and was in good spirits.

The second week his right side was paralyzed so that it was immovable, even to the muscles of the face. During this time there was no inflammatory action, although there was some discharge of a thin watery character through a rupture of the dura mater at the bottom of the cup-shaped cavity. The third week his general symptoms were the same, but I had noted for some days at the bottom of the cavity, a growth, which looked like the exuberant granulations seen in gunshot wounds which are healing, coming up from this fissure in the dura mater. It grew a little each day, and gradually filled up the cavity of the skull, protruded, and in a few days was from half to three-quarters of an inch above the surface, and kept growing till it was as large as a small orange.

May 13th, I called counsel to determine what to do with this mass. We decided to ligature and cut it off. I passed a double thread through it and cut off half at a time. There was no pain; we used no anæsthetic, and there was little hemorrhage, which stopped very soon after the application of powdered persulphate of iron. The protrusion still grew, so that on the 18th, I again removed it down to the surface of the skull. During the fourth week, the paralysis extended to the throat, so he had difficulty in swallowing; he became more stupid, and wandered in his mind slightly. The fungus cerebri continued to grow, and I concluded not to interfere with it any more, it became as large as at the first operation, when he died on the 21st day of May, 1886. There was no post-mortem.

The question is, was this a hernia of the brain substance or a fungous growth, like granulations, growing from the brain through the wound of the dura mater? If it was brain substance, it should not have been excised, if a fungous growth then it was not bad treatment to cut it off. Gross says, this affection is sometimes ridiculously enough called hernia of the brain, that this growth is fungous; and that the tumor is not composed of cerebral matter to any extent, as has sometimes been supposed, is proved by the circumstance that after death the loss of brain does not at all correspond with the volume of morbid

growth and the repeated retrenchments to which it was subjected during life.

In the 1st surgical volume of the Medical and Surgical History of the War, page 295, a case is reported by McCall, Ass't. Surg. U. S. A., almost identical with this case. He calls it a fungus cerebri, or hernia of the brain. His treatment was the same as mine, even to the method of amputation. A post-mortem revealed an abscess in the left hemisphere, on the same side as the injury.

On page 207 of the same volume, a case is reported which recovered. The attending surgeon tried compression, according to the French method, but with such serious results, he says, that "I was startled for the safety of my patient," and therefore threw aside all treatment save simple cerate on soft lint. This case was reported by W. P. Moon, Ass't. Surg. U. S. A. In Holmes' Surgery, vol. 1, Dr. John A. Lidell, states "that in hernia cerebri,—such I mean as is described by English surgeons—the protruded substance appears to have varied somewhat in its nature; but, whatever may have been the actual appearance of the tumor itself, the dura mater was, at any rate, torn through, and the protruded substance was more or less intimately connected with the brain. In some cases the protrusion is described as having been chiefly composed of blood extravasated under the pia mater, between it and the surface of the brain, or in its most superficial parts; in other cases the appearance of the protruded mass was that of true brain substance, looking exactly like the structure of the brain with which it was continuous; and in other cases again, the tumor is represented as an over-abundant granulation from the brain, the injury of which it was destined to repair. Indeed, some surgeons believe that this is the only form in which hernia cerebri shows itself: not then a protrusion of brain matter; not a hernia cerebri; but simply a growth from its over luxuriant granulation."

Thomas Bryant, in the last edition of his Surgery, speaks of it as hernia cerebri, and does not mention fungous growth.

Prof. Markoe of the College of Physicians and Surgeons, New York, says

that it is granulation tissue growing from the wounded dura mater.

In regard to treatment, Gross advises compression when it can be done, but when the mass has reached a large growth, it should be ligatured or the actual cautery be used.

Lidell in Holmes' *Surgery* says: "The less the protrusion is meddled with the better." He condemns the use of the knife or ligature, using cold water and cleanliness only.

Bryant advocates letting it alone; no compression or ligation, but simply dressing with cerate and cold water.

Prof. Markoe teaches his students to use excision and compression application of cold water. He also recommends caustic potash to reduce the growing mass.

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PEROXIDE OF HYDROGEN AS A REMEDIAL AGENT.*

BY I. N. LOVE, M.D.,

Consulting Physician City Hospital, St. Louis.

The medicament to which I propose to direct your attention in this short paper is the "peroxide of hydrogen," the formula for which is H_2O_2 , and which was discovered in 1818 by Thénard by adding dilute acids to peroxide of barium. Meissner in 1865 proved its presence in the rain water collected during thunder storms, and this has been corroborated by Schönbein, Struve and others. The usual preparation of a solution of peroxide of hydrogen depends upon the decomposition of barium peroxide by hydrochloric acid (carbonic or hydrofluoric acid may be used) in the presence of ice-cold water, and the precipitation of the newly formed barium chloride by means of sulphate of silver. Such solutions usually contain about three to five per cent. of the peroxide and are concentrated by freezing, the last portions of water being evaporated *in vacuo* over sulphuric acid, at a temperature not exceeding 68° Fahrenheit. In this form it is a colorless, transparent, syrupy liquid, with a specific gravity of 1.452; does not congeal at 22° (F), below zero; it volatilizes slowly and

without decomposition at the ordinary temperature. It is decomposed when exposed to the sunlight, or when heated or brought into contact with charcoal, silver, gold, the platinum metals, the oxides of manganese, alkalies, and other compounds; and in this concentrated form the peroxide, if brought under favorable conditions may decompose with explosive violence. If brought in presence of the oxides of the metals mentioned, they are reduced to the metallic state. Many other bodies are affected less energetically or are oxidized. Litmus and turmeric papers are gradually bleached, and the skin may be turned white by its application, accompanied by itching. In the strength to which I am now referring, it is soluble in water in all proportions, without odor; and then has a harsh and bitter taste. Solutions are decomposed by the same agents as the pure compounds, but less violently. They are made more permanent by adding a small amount of mineral acid.

The commercial peroxide of hydrogen is a three per cent. aqueous solution, and is prepared on a large scale for the bleaching of animal products, such as feathers, hair, silk, bone, etc. It is known as ten volume peroxide of hydrogen, owing to the fact that it yields about ten volumes of active oxygen, which may be estimated by adding a sufficient amount of sulphuric acid, and afterwards a standardized solution of potassium permanganate as long as the latter is decolorized. From its very nature, this agent should be a powerful antiseptic and a destroyer of microbes. Anything which accomplishes oxidation as rapidly, if it can be applied safely, must be an excellent application to purulent surfaces for its cleansing effects. It has been administered internally for diabetes, but without success. Its recommendation for some form of atonic dyspepsia would seem to be reasonable, since we know that condition to be frequently due to a catarrh of the gastric mucous surface accompanied by excessive secretion and fermentation.

I find there is considerable variation in the effectiveness of solutions coming from different drug stores. This may be due to a failure to protect it from

* Abstract of a paper read before the St. Louis Medical Society, February 4, 1888.

the sunlight. It should be kept in opaque bottles at a temperature not above 77°.

The clinical application of a remedy is the best test of its value. As a contribution to the fund of knowledge upon this subject, I herewith present the following cases:

Scarlet Fever and Diphtheria.—R. H., aged four years, an unusually intelligent and interesting boy, developed scarlet fever December 22, 1887, a pronounced case, temperature vibrating for several days from 102° to 104°, throat quite sore, some disposition to ulceration upon both tonsils. Within a week symptoms much modified, temperature ranging in the neighborhood of 100°, where it remained for four days, child being quite playful but not permitted to get out of bed. At this time diphtheria became a complication involving the pharynx and the nasal passages. The secretions from all the mucous surfaces were very profuse and purulent in character, and suffocation at times seemed imminent from its accumulation, and the odor was extremely offensive to the patient as well as the attendants. A well organized fibrinous exudation appeared over the surface of the tonsils well forward to the palate and upward into the posterior nares. The submaxillary and sub-lingual glands were much enlarged and engorged. Wherever a mucous surface was visible, if not covered with diphtheritic membrane, it was violently inflamed nearly to the point of ulceration and exuding a purulent and most disgusting discharge. Temperature ranged in the neighborhood of 104° and 105°; constant paroxysmal cough annoyed him, due to the general irritation and accumulated secretions, and at times a marked asthma was present owing to reflex irritation dependent upon the inflammation of the posterior nares. The general conditions were alarming, the child being almost in a state of frenzy owing to his many discomforts. Laryngeal diphtheria also became a complication. I shall not give in detail the notes of the case, as I only cite it as an illustration of the value of a particular remedy to relieve a particular series of symptoms. Having been using the peroxide of hydrogen in various

strengths for some months as a purifying and stimulating wash for purulent ulcers, sinuses and fistulæ, as well as diphtheria, I concluded to use it as an application in this case, diluting it with one part to two of water for application to the nasal passages by means of a syringe; and using it in its purity by means of probang and absorbent cotton to the pharynx. I soon had the satisfaction of seeing the pus and accumulated mucus cleaned out from all the surfaces as if by magic. The child was a bright little hero and, though semi-delirious, he helped materially in its application and also in the removal of the oxidized purulent matter. The nasal passages front and back were soon cleared out well, the fauces as well were kept in a comparatively cleansed condition. A good opportunity was now presented for applying the solution in its purity to the membrane direct, and the disintegration of the same was accomplished after repeated application in a very decided manner. Wherever the solution came in contact with organic matter, a marked effervescence and bubbling ensued and a breaking down of the accumulation or exudation and throwing off of the same occurred. The beneficial effect of the application was apparent; all the distressing symptoms were much abated, and within three or four days they had passed away. One thing quite noticeable was the fact that the constant spasmodic cough subsided after the removal of the purulent secretions from the nasal passages. The success in this case was similar to that in six other cases, and I quote this one as illustrating the class, not desiring to indulge in repetition by reporting them all. This child was in a most dangerous condition for many days and nights, and I do not claim that the peroxide of hydrogen saved him but it certainly helped to do it, in that it enabled me to combat the local poison, acting as an antiseptic, a germicide of the most pronounced character, a remover of purulent septic matter and offensive odors, aiding in the conservation of comfort to patients and attendants.

Constitutional and local measures were, of course, not omitted; constant attention being directed to elimination, sedation, stimulation and nutrition.

Purulent Ozæna and Chronic Nasal Catarrh.—I have applied the peroxide of hydrogen in strengths varying from one part to three or to six of water, in four cases of the above character during the past month. Very favorable reports have been given me, enough so to justify me in considering it of great value in this affection. A sufficient time has not elapsed to enable me to determine whether it will secure a permanent cure. The application was made three times daily.

Acute Coryza.—The peroxide in the proportion of one to four of water was applied freely by means of a syringe through the nostrils; a hard rubber syringe gently throwing about two tablespoonfuls into each nostril while the head is thrown backward. It passes back through the posterior nares carrying the completely oxydized mucous secretion with it. It is then applied to the fauces in the same manner. A free sneezing and perfect discharge follows. The application is made about once in four hours in the beginning, and less frequently later. Three such cases were greatly relieved after the first application, and cured inside of a day or two. It is well-known that influenza in some cases, at least, is dependent upon some irritating germ, and possibly, the agent used above killed the microbe.

Whooping-cough.—In two cases where the paroxysms were frequent and violent, I have had great satisfaction in seeing their frequency and severity much modified by the use of the peroxide (1 to 4) twice daily, and the attack was unquestionably cut short.

Reflex Asthma.—Two cases of reflex asthma intercurrent during an attack of diphtheria, and a general catarrhal fever dependent upon the irritation in the post-nasal space were promptly relieved after a few applications of the peroxide (1 to 4).

Follicular Tonsillitis.—Very satisfactory results were obtained by using the remedy as a gargle (1 to 6), every two or three hours. Listerine, calendulae and other soothing, stimulating and astringent remedies, were used by means of the atomizer during the intervals.

Hay Fever.—I have not used the remedy in this disease, but would sug-

gest from the manner of its action that it is worthy of trial.

Cancer of the Womb.—In this affection I have had great satisfaction in using the peroxide in its purity as a cleanser, deodorizer and stimulator of healing in that portion of the ulceration probably dependent upon the irritating effect of accumulated purulent matter.

The gratification and comfort to patient and attendants secured by the application, well repaid its use.

One who has never observed the horrible stench in the room, of a neglected cancer of the womb, can have no conception of the value of the drug in this connection. Dr. Joseph Grindon, a dermatologist of St. Louis, informs me he has used the agent to remove pigment spots from the skin.

This is the usual remedy furnished by dealers to weak-minded women for bleaching the hair.

It is needless for me to continue to cite cases and conditions where the peroxide of hydrogen will prove of value.

I think it worthy of trial in gonorrhœa.

After a six months' trial of the peroxide of hydrogen, considering the nature of the agent and its effect upon purulent matter and bacteria, I feel justified in determining:—

1. The peroxide of hydrogen is a most efficient means of cleansing purulent surfaces, deep cavities and sinuses, and stimulating the healing process in ulcerating parts.

2. As a destroyer of microbes, a cleanser and securer of comfort, it is of great value as a local application in diphtheria and scarlet fever, ozæna, coryza and whooping-cough.

3. For the above reasons it should prove of value in gonorrhœa, hay fever and similar disturbances probably dependent upon a specific germ.

[NOTE.—After this paper had been turned over to the Executive Committee of the St. Louis Medical Society, I received the February number of the *Archives of Pediatrics*, containing a report of eighteen cases of diphtheria treated by means of the hydrogen peroxide, locally, by Dr. Marcus P. Hatfield, of Chicago. I made a preliminary report upon the subject to the Medico-Chirurgical Society of St. Louis, January 24, 1888. I am glad my own experience has been endorsed and sustained by so able an observer as Dr. Hatfield.—I. N. L.]

A SUCCESSFUL CYSTOTOMY
AFTER FAILURE OF SUCTION
TO REMOVE A PIECE OF CATH-
ETER FROM THE BLADDER.*

BY W. W. KEEN, M.D.

THE recent suggestion of Dr. De Forrest Willard (*The Medical News*, Nov. 26, 1887) and Reginald Harrison (*Lancet*, Oct. 29, 1887), to extract foreign bodies from the bladder by the rubber bulb and evacuator of Bigelow's litholapaxy instrument, makes a valuable addition to our surgical resources in these troublesome cases and is my especial reason for bringing to your attention to-night the following case. The failure in this particular instance was due to special reasons.

J. W., a healthy man, aged 75 years, living in Elkton, Md., had suffered for a considerable time with recurring retention of urine and cystitis, following an enlarged prostate. Dr. Charles M. Ellis, his attending surgeon, very wisely taught him the use of the catheter, which he has employed daily for some months. The Nélaton catheter (No. 22 French), which he has employed, having lost its rigidity, he whittled a pine stick to the necessary size, and sought by means of this to introduce it into the bladder, November 7, 1887. In the attempt the catheter broke, and a piece subsequently ascertained to be four and a half inches long, broke off and passed into the bladder. Severe pain and retention followed immediately, and persisted until after I operated upon him. Dr. Ellis, having failed in his efforts to extract the fragment, sent him to me, as surroundings at home were unfavorable for any operation.

Three days after the accident I made similar and repeated unsuccessful efforts at extraction with forceps and lithotrites. I was not even able to detect the fragment.

On November 11 and 13 I attempted to remove it by suction with Bigelow's evacuator. On the last occasion, Dr. Willard kindly helped me personally. We repeatedly filled the bladder with warm boiled water, being careful to keep the extremity of the evacuating tube just at the vesical extremity of

the urethra; but suction had no effect in engaging the fragment. This was amply explained later, by finding that it lay crosswise, and was so long that both ends were held fixed by the walls of the bladder, while the relative rigidity of the short fragment prevented any possibility of its being brought to the opening of the evacuating tube, though we sought for it through the tube by Dr. Willard's forceps. An evacuating tube with a lateral eye gave no better results than one with an opening at the end. I also used a rectal bulb filled with seven ounces of warm water, but all to no purpose.

After debating between suprapubic and lateral cystotomy, I decided upon the latter, in consequence of the observation of Harrison and others, that the prostate sometimes shrinks after perineal cystotomy, when a tube is retained in place for some time. Accordingly, Dr. Wm. J. Taylor etherized him, and I did left lateral cystotomy with a staff. The operation presented nothing unusual. The prostate was markedly enlarged in its lateral lobes, so that I was barely able to get my finger into the bladder. With the ordinary lithotomy forceps I quickly seized the fragment by the middle, removed it, and introduced a rubber drainage-tube with a flange, by which it was easily retained in place by tapes. His temperature never rose above 99°, and in six days he went home, with my instructions to retain the tube in place for two months, and then to remove it and allow the opening to heal. By this means I hoped to be able to avoid the necessity for the subsequent daily use of the catheter.

December 5, after nearly five weeks retention of the drainage tube in the bladder, I found that, owing to his feebleness, want of care and cleanliness, the tube was proving a source of irritation and slight suppuration. Accordingly, December 10, I removed the tube. In three days the wound closed sufficiently to cause him to void his urine by the urethra, and he was no longer obliged to rise at night to relieve the bladder. The prostate has shrunk to some extent, so that he no longer needs to use a catheter. Whether this will be permanent, or is only temporary, time alone will determine.

* Read before the Philadelphia County Medical Society, at the stated meeting, Dec. 28, 1887.

A NOTE ON CUCUMBER OINTMENT.

BY LOUIS GENOIS,
Apothecary.

THIS ointment, at one time quite popular, seems to have in latter years fallen into disuse, more likely, however, from neglect than from any attributable cause; and yet when properly made it is an elegant preparation, possessing a refreshing odor and forming an excellent application for softening the skin of the hands.

Some care is required to preserve it in good condition as it is prone to rancidify in time; the usual way is to cover it with a layer of rose water and to keep it in a cool place.

There have been a variety of processes for the preparation of this ointment, the older ones of which are too cumbersome and elaborate for practical purposes; the few apothecaries who still continue to keep it in stock make it by first preparing a distilled essence of cucumber and then mixing this with benzoinated ointment in the proportion of one of the former to four or five of the latter; thus made the preparation is very smooth and creamy, and is of handsome appearance and fragrant odor. The distilled essence of cucumber is made by distilling a mixture of one part of grated cucumber and three parts of diluted alcohol, and collecting the first two parts of distillate that come over.

As a vehicle for medicated ointments the cucumber ointment is admirably adapted, mixing readily with vegetable powders; extracts (previously softened with the proper fluids) the metallic oxides, etc., but physicians seem to prefer the various petrolata, the zinc ointment and other excipients.

Cucumber ointment is also said to be good to heal frosted toes and to assist the growth of the hair. (?)

1201 Chestnut Street.

PROF. AUSTIN FLINT, M.D., LL.D., will deliver the annual address before the Alumni Association of the Jefferson Medical College, on Monday evening, April 2, in the amphitheatre of the hospital. A reception will subsequently be held at the Hotel Bellevue.

HOSPITAL NOTES.

AT THE MEDICO-CHIRURGICAL HOSPITAL.—As an antiseptic and disinfectant for obstetrical requirements, Stewart prefers Labarraque's solution, a tablespoonful to the pint of water.

NERVE-SECTION FOR NEURALGIA.—On March 3, Garretson performed at his clinic a delicate and skilful operation. It was the resection of the superior maxillary division of the fifth nerve, for an intense and persistent neuralgia. The skin was dissected back, exposing the anterior external wall of the antrum of Highmore. A circular opening, about an inch and a quarter in diameter, was made in this wall by means of the surgical engine. Part of the floor of the orbit holding the nerve was then removed in the same way. Finally, the spheno-maxillary fissure was enlarged, so that the surgeon could enter the spheno-maxillary fossa and cut off the nerve at its exit from the foramen rotundum. The patient is relieved of his neuralgia and is doing well. Garretson has performed this beautiful operation a number of times, and always successfully.

VOMITING IN INFANCY.—Avoid giving alcoholic stimulants to young children, if possible. If a stimulant is absolutely necessary, give aromatic spirits of ammonia. For the vomiting of small children with dyspepsia, give gtt. j. carbolic acid in $\frac{1}{3}$ lime-water: one teaspoonful to as much milk every two or three hours. (Atkinson).

TREATMENT OF SYPHILIS.—McConnell holds that syphilis is a self-limited disease: it tends to get well, whether treated or not; that so-called "tertiary syphilis" is not syphilis at all, for it cannot be inoculated; that a patient with "tertiary syphilis" may with impunity be allowed to marry; that a man with syphilis should be constantly treated for eight or nine months, and at periods of a few months apart for a year longer; and should be kept under observation until three years have elapsed after beginning treatment; that a woman should be kept under observation for five years, with correspondingly longer periods of treatment.

BRONCHITIS IN ELDERLY PATIENTS.—Woodbury considers twenty minim doses of dilute phosphoric acid, along with elixir of cinchona, of good service in bronchitis of elderly people. If there is much cough, give also syrup of wild cherry.

ICHTHYOSIS.—Shoemaker showed at his clinic a boy of five years of age, afflicted from birth with ichthyosis, or fish-skin disease. The child's mother said that sixteen doctors had at different times promised to cure the disease: and all had failed. The lecturer remarked that there was nothing at present known which would effect a cure; but that the disease could be masked by the application of different preparations: oil of ergot, for instance, scented so as not to be offensive.

EPILEPTIC CONVULSIONS.—What would you do if you were suddenly called to a patient lying in an epileptic fit? Loosen all tight clothing; place him in such a position that he cannot hurt himself; put something between the teeth, to prevent the tongue from being bitten; then give him a few whiffs of nitrite of amyl, or failing that, of ether or of chloroform. (Atkinson).

PAINS IN THE BACK, NOT LUMBAGO.—Waugh believes that the lumbago of dropsical patients is frequently caused by the "water-logged" condition of the muscles in the dorsal region. He exhibited at his clinic a case which had obstinately resisted ordinary myalgic treatment, but which yielded at once when a heart tonic was given.

PHYSICAL EXAMINATION.—In examining the condition of the spinal cord, Pancoast advises against pressing the fingers on the spinous processes: pain here simply shows that the periosteum is inflamed. He shocks the cord by smart, quick blows with the fist along the spinal vertebrae.

HOW TO PALPATE THE ABDOMEN.—Let the patient take a deep inspiration; and when he exhales, at once follow the abdomen firmly with the palm of the hand.

ANEMIC HEADACHE.—Longstreth (Pennsylvania Hospital) presented a girl, 18 years old, who complained of

severe headache and constant vomiting; her appetite was good, tongue coated, and he designated it "starvation headache." Though the stomach may be full of food, it cannot be digested and assimilated for want of muscular activity. He says the principal action of digestion is due to the contractility of the stomach. He gave her very small doses of milk and lime-water at frequent intervals, and vomiting soon ceased. For the blood he ordered carbonate of iron.

TREATMENT OF GASTRALGIA.—Longstreth also showed a woman suffering with gastralgia accompanied with vomiting. He gave her $\frac{1}{2}$ grain of calomel to relieve the vomiting, and 15 grains of bicarbonate of soda to reduce the mucous secretion; then lime-water and milk. He says such a patient should have food in small quantities at frequent intervals.

INTESTINAL CATARRH.—Another patient 20 years old, complained of pain in the abdomen and bowels, headache, fever, quick pulse, constipation, pain in the right iliac region, and some swelling in the inferior maxillary region; the right tonsil was inflamed, and her tongue was coated. Longstreth said it was a catarrh of the bowels. He gave her twenty grains of chloride of ammonium every four hours, with the intention of acting on the mucous membrane. For swollen tonsil he ordered turpentine stupes to the neck. To a patient who complained of cramps in the abdomen, diarrhoea with mucous discharges, tongue red and denuded of the epithelium, he gave bismuth combined with charcoal to prevent fermentation and systemic irritation. He says that the bowels should not be allowed to be constipated, and the bismuth only acts as a sedative; but if the bowels move very frequently, with great pain and tenesmus, opium is indicated.

CARBOLIC ACID IN HÆMORRHOIDS.—Hunt (Pennsylvania Hospital), in operating on a case of hæmorrhoids by ligation, spoke of treating hæmorrhoids or hydrocele by injection. He stated that the injection of carbolic acid in the pure state is never attended with danger of poisoning; whereas the weak solutions

may be absorbed, and poisoning may follow.

CONTUSIONS, WITH RUPTURE OF THE LIVER.—Hunt calls attention to accident cases where the patient is buried under earth which has caved in, and says that such should always be considered very grave accidents; the patients generally die of rupture of the liver in eight or ten days after the injury.

STAB-WOUND OF PERICARDIUM.—Hunt reported a case of stabbing which occurred on board of a vessel. When the patient was received in the hospital there was found a wound on the left side of the chest, just below the coracoid process of the scapula, extending downwards and inwards, penetrating the lungs. The knife apparently had passed between the pericardium and heart. Patient is emphysematous, otherwise doing well; temperature not over 100°.

TRANSLATIONS.

ALPHA-NAPHTHOL.—Maximovitch has presented the results of his investigations of alpha-naphthol. It is insoluble in cold water; soluble in hot water to the extent of 4 parts in 10,000. Ten grammes can be dissolved in one litre of water containing 400 c.c. of absolute alcohol.

In liquids, such as ordinary meat-broths, alpha-naphthol, in the proportion of 1 to 10,000, completely prevents the development of the microbes of glanders, splenic fever, chicken cholera, bacterial carbuncle (charbon), pneumonia-cocci, both suppuration-organisms, of *clou de Biskra*, of *Tetragonus*, and of the bacilli of typhoid fever and of pigeon diphtheria.

In the proportion of 20 to 25 to 10,000, alpha-naphthol completely prevents the germination of the tubercle-bacillus; while in 10 parts to 10,000 it checks it. Introduced into the system, alpha-naphthol is less toxic than beta-naphthol. To kill a rabbit, requires 9 grammes per kilo; so that the toxic dose for a man weighing 65 kilos would be 585 grammes. Introduced beneath the skin, in saturated alcoholic solution, two grammes have sometimes produced

albuminuria; while death resulted from the injection of 3.5 to 4 grammes per kilo. By the veins, a dose of 0.13 gr. per kilo caused death. As compared with beta-naphthol, these results indicate that the latter substance is inferior to alpha-naphthol by reason of the greater toxicity and less antiseptic strength.—*La France Medicale*, No. 22.

ON SO-CALLED SPONTANEOUS TETANUS.—Verneuil, in a communication to the Académie des Sciences (*La France Medicale*, Feb. 16, 1888), opposes the idea of the spontaneous occurrence of tetanus, and declares positively that, if sufficient care be taken in examining cases reported to be such, it will always reveal the port of entry of the virus, which is the sole and real cause of the malady. He communicates the clinical history of a case which was declared to be without lesion, but which, it was subsequently ascertained, suffered with a deep and hidden ulceration of the pharynx. This he declared to be the point of entrance of the poison into the system.

In conclusion, he called attention to the throat as a not uncommon site of infection where a preceding lesion existed. In three out of twenty-seven cases of so-called spontaneous tetanus which Verneuil has published, this was found to be the case. The proportion of three out of twenty-seven certainly deserves attention.

[In this connection the following is of special interest. Dr. Beumer, of Greifswalde, reports a case of fatal tetanus in a man who ran a splinter under his nail while playing at ten pins. Some of the wood and the earth from the bowling alley were taken, and rabbits and white mice inoculated with cultures. Tetanus and death speedily ensued. The same results followed in every instance, thus showing the existence of a virus in the wood of the alley and in the soil beneath.

Beumer also reports a second case, occurring in a child five years of age, where a portion of the skin from the neighborhood of the wound produced tetanus when introduced under the skin of rabbits; thus proving the identity of tetanus in animals and in man.—*Deutsche Med. Zeitung.*]

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MARCH 15, 1888.

EDITORIAL.

AN OPPORTUNITY FOR TEMPERANCE ADVOCATES.

THE tendency in the United States appears to be towards moderation in the use of alcoholic drinks. In our Eastern cities, the spectacle of a drunken person upon the streets is not as common as it was twenty years ago; and when such a sight is presented, the subject is far more likely to be a foreigner than a native-born citizen. Nor can this be held to be due to the greater tendency to secret indulgence by our compatriots. As significant of this, we note that the British medical journals contain many pages of the cards of private inebriate asylums, while such advertisements are almost unknown in American journals.

The typical American is far too keen a business man to fuddle his brain with alcohol. Like Hugh Miller, he prefers to have every faculty at his command, and fully realizes the disadvantages one labors under when his judgment is unsettled by toxic agents. The national devotion to business undoubtedly has its effect in helping the cause of temperance.

A more important factor is the universal diffusion of knowledge, and the modern attempt to familiarize every school-boy with the physiological and pathological effects of alcohol. It is a source of regret to the physician's mind that some text-books are filled with lurid and untrue pictures of the effects of drink; for when the pupil discovers the exaggeration, he is apt to discredit the whole affair. It would be

better to stick to the simple truth; it's surely bad enough.

An attentive examination of the work of the great temperance agitators leads us to the conclusion that their ulterior results are but trifling. We hear of hundreds taking the pledge; but the percentage of permanent cures is small. "The dog returns to his vomit," and when the first burst of enthusiasm is over, the newly-made converts backslide with unanimity and celerity. And this is to be expected; for even in the conversion of sinners the principles of science find a place. Instead of seeking to sweep one away from his moorings by opening the floodgates of emotion, a study should be made of the causes which determine the aberration from morality, and of the application of means to obviate those causes.

For this reason we attribute more influence to the establishment of cheap coffee-houses than to the efforts of the evangelists. The free lunch proved a great attraction to the saloon and encouraged tippling; and the recognition of this fact, with the opening of five-cent lunch counters, constitutes the most conspicuous advance of modern times for the temperance advocates. With these the springing up of places where milk is retailed by the glass, and hot coffee, chocolate and beef-tea in winter, or mead and soda in summer, have proved to be powerful blows struck at the liquor interest. Men need not resort to whiskey-punch to warm their chilled blood when nutritious and palatable drinks can be had as readily. Cold lager is inviting on a sultry summer's day; but the insurance men tell us that the beer-drinker does not live out his allotted time, and mead, milk, or seltzer are just as cooling, if less invigorating. The barkeeper himself has been forced to recognize the popularity of these beverages, and to add

beef-tea, buttermilk and even chocolate to his list.

But our main purpose is to point out another means whereby the temperance men can make a move just as scientific, and consequently as certain to be effectual.

Why is it that so many men who are temperate in their youth become moderate drinkers in middle life, and much worse in old age?

Granting that the struggle for existence tells most heavily when the elasticity of youth is gone and the system is enfeebled by previous disease, there yet remains a very large number of cases in which nothing of the sort can be alleged.

Perhaps the love of luxury which comes when one has retired from active business, is responsible for many cases. When one reaches this blissful haven, he is apt to have acquired with his riches a profound admiration for himself; and he will venture into dangers he would have shunned in his earlier and less conceited years.

But a further explanation may be found in the condition of the urinary apparatus. When a man passes his fortieth mile-stone, with his increased rotundity, his "growing taste for early news," etc., there comes an increased frequency of calls to micturate. If he be a countryman, this is of little moment. But in the city, it is different. When one starts to go down to his office, and the impulse to evacuate his bladder comes on imperatively, what is he to do? Decency and law alike forbid the defiling of public thoroughfares. Delicacy prevents the trespass upon private property. The hotels may be utilized if one has the necessary assurance to disregard the placard which says, "For guests only." But the most readily available place is after all the saloon; and insensibly the habit

is formed of dropping into the nearest bar-room, making use of the urinal and contributing to its support by taking a glass of beer.

The best use to which the temperance societies could apply their surplus funds, would be to start an agitation to compel the large cities to erect public urinals, such as exist in many European cities. This would cut off a large source of income from the saloons, and would favor the sanitary condition of the city at the same time.

Now that the action of the high-license law is lessening the number of saloons, the agitation for this purpose is peculiarly well-timed.

W. F. W.

MULTIPLE SYNCHRONOUS AMPUTATIONS.

AMPUTATIONS, in order to be strictly synchronous, would be required to be simultaneously performed upon the patient by two or more operators. The advantage of such coöperative procedure consists in the rapidity with which the end is accomplished, with the minimal amount of shock and exposure. Multiple synchronous amputations of digits or parts of members for frost-bite, or other injury, are not uncommon. Multiple major operations, however, are rare among primary amputations and are frequently fatal. Technically, amputations are still included under the title of synchronous operations, when they are performed by a single operator; although, in reality, performed consecutively, they do not come under the head of consecutive amputations.

A case of triple synchronous amputation, the gravity of which makes it unique among surgical records, was reported by Professor Ashurst at the last meeting of the College of Physi-

cians of this city. The patient, after being run over by a train of cars, was brought, without delay, to the Hospital of the University of Pennsylvania, which was near to the scene of accident. In addition to crush of right leg above the knee, avulsion of the left at the lower third, and crush of right wrist, the patient had suffered laceration of the scalp and fracture of the frontal bone. A triple primary amputation was performed of the right thigh, left leg, and right forearm, and the patient made a good recovery.

In connection with this case, Prof. Ashhurst reported fifteen double amputations, with ten deaths (seven in one day, one in three days, one in four and one in eighteen) and five recoveries. He had operated once before for railway injury, removing both legs and the right forearm, in a patient who died of alcoholism ten days later. He also referred to the case of Dr. Koehler, of Schuylkill Haven, in this State, where both legs and the right arm were successfully amputated. Lowman, of Johnstown, and Stone, of New Orleans, have also reported cases, and Agnew refers to one done in York by a surgeon whose name was not given. Triple operations not synchronous have oc-

curred in the hands of Lévéleuc, Ritter (2), Marten, Bruberger and Field; numerous unsuccessful operations of this kind have been done, but need not be here referred to.

A remarkable case of quadruple synchronous amputation was done by Dr. George E. Jackson, of Dakotah, and the patient recovered. Other quadruple amputations, not strictly synchronous, have been recorded by Müller, Begg, and Champenois, the latter removing three limbs and subsequently the fourth one. Others have been referred to by systematic writers on surgery, such as Morand, Longmore, Southam, and H. Larrey.

Prof. Ashhurst in explaining the technique of the operation made the startling remark that many of these cases of multiple major amputation really die from too great exposure and chilling of the body. He therefore omits constant irrigation of the wound and the use of wet towels, which are commonly regarded as necessary to the antiseptic system. He employs antiseptic dressings because the opening of the stump is less frequently required than under the older methods of treatment. He presented the following statistics of his multiple synchronous operations:—

Double	Man, 21.	R. arm and r. leg.....	Died...	18 days.	Pyæmia; had suppurat'g ear-disease.
"	" 25.	L. thigh and r. foot.....	Died...	1 day..	Shock of injury.
"	" 48.	R. forearm and l. leg..	Recov'd.	
"	" 25.	L. arm and l. leg.....	Recov'd.	
"	" 40.	R. forearm and l. leg..	Recov'd.	
"	" 19.	Both legs.....	Recov'd.	
"	" 35.	R. arm and r. leg.....	Died...	12 hrs..	Shock of injury.
"	" 5.	L. thigh and r. leg.....	Died...	3 hrs..	" "
"	" 35.	Both knees.....	Died...	8 hrs..	" "
"	" ad.	Both arms.....	Died...	8 days.	Head injuries, etc.
"	" 15.	R. hip and l. leg.....	Recov'd.	
"	" ad.	R. leg and l. arm.....	Died...	9 hrs..	Shock of injury.
"	" ad.	R. knee and l. leg.....	Died...	4 hrs..	" "
"	" 32.	R. shoulder and l. leg..	Died...	4 days.	Head injuries, etc.
"	" 25.	R. shoulder and l. arm..	Died...	11 hrs..	" "
Triple.	" 21.	Both legs and r. for'arm	Died...	10 days.	Alcoholism.
"	" 20.	R. forearm, r. thigh and	Recov'd.	(Also had c. fracture of the skull).
		l. leg.....			

PHYSICIAN, AND SOMETHING MORE.

In the *Druggist's Circular* for March appears a paper by L. A. Sayre, in reply to Mitchell's letter in the *Times* of December 15.

Dr. Sayre grasps the elephant by the head; and we must say that he gives a very fair description of that end of the animal's body. So far as the leading members of the medical and the pharmaceutical professions are concerned, he occupies tenable ground. But not in ten per cent. of the cases do his ideas fit. There are many thousands of scattered hamlets in this country which are unable to support a physician, a dentist and a druggist; but which would afford a good living to one who united all three characters in his own person. How many doctors eke out their incomes by farming? Much better do it by pharmacy, dentistry, or veterinary surgery. We have as yet heard nothing to alter our first opinion: that the true system lies in a conjoined course, which instructs one in *all* the branches of the healing art, and leaves him to follow one or the other, as inclination or opportunity may determine.

W. F. W.

THE THIRTY-SIXTH ANNUAL COMMENCEMENT OF THE WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA was held at the Academy of Music, March 15, 1888. Prof. Rachel L. Bodley, dean of the faculty, delivered the address to the graduates, of whom there were twenty-seven. In the address a pointed allusion was made to the fact that the Philadelphia County Medical Society still refuses to acknowledge the existence of women-physicians.

IN MEMORIAM: AUSTIN FLINT, M.D., LL.D.—A bust of the late Prof. Flint was unveiled with proper ceremonial, at the Carnegie Laboratory of the Bellevue College, on the tenth inst. Dr. Abram Jacobi delivered an address suited to the occasion. Many invited guests participated in the ceremonies.

LETTERS FROM SPECIAL CORRESPONDENTS.

LETTER FROM PARIS.

PLASTIC surgery with transplantation of animal skin, as formerly tried by Czerny, of Vienna, has lately become quite the rage in France. MM. Peyrot, Monod and others have had very good results by transplanting frog skin, with which they filled up quite large losses of substance. The latest effort in this line is that made by M. Redard, who uses *chicken skin!* One of his patients was a young girl who, after a very profound burn of the head, had still, eight months afterwards, almost all of her head in a state of suppuration which weakened her very much, and indeed threatened her life. After two months' time, an entire regeneration of the scalp was obtained with chicken skin. The part restored measured seven centimetres by eight centimetres; this will give an idea of the extent of the operation. It is possible to use chicken skin, as it is fine and soft; while it is highly vascular, and adheres well to all surfaces without any sutures being needed. It sticks on without reabsorption, and forms little epidermic islands, as it were, that extend on all sides and form new tissue that is quite different from ordinary cicatricial tissue. It is proposed to study the histological modifications that take place during this process of repair, and we will give details of it later. For the moment, it will be sufficient to say that the skin used should be taken from quite young chickens, from under their wings, and that it should not be deprived of cellular tissue; but it should not have any fat. All the subcutaneous tissue must be taken up along with the skin, and the flaps are to be at least from half a centimetre to one centimetre. No sutures are to be used, as it will stick on without, and cannot be easily displaced. The wound must be aseptic, and the dressings must be made with great care. Iodoform gauze is used, with a layer of antiseptic cotton, without too much pressure.

An interesting study has been made here on "The Relation of Diphtheria in Man to that of Animals." It had

been freely stated that the disease was identical in both, and transmissible from one to the other. M. Delthil takes the matter up again, and gives a number of cases where, for instance, the children of people keeping and selling fowls were constantly attacked with diphtheria; and others, where the chickens had seemed to give it to all who had to do with them. The long list of proofs need not be given, as the conclusions may be accepted on our statement. They are as follows: 1st. That the identity of diphtheria in man and animals is probable. 2d. That transmission from one to the other is possible. 3d. That diphtheria can be transmitted to persons at a distance by a person who may himself remain healthy. The latter fact was shown by a man who brought to a house, pigeons for sale, that were afterwards shown to have had the disease, as they died of it in the hands of the person who bought them, and gave the disease to his children, one of whom died; yet the man who brought the pigeons remained well.

Professor Tarnier, of the Maternity, and Professor Budin, of the Faculty's accouchement hospital, give some practical points of general interest, on the hygiene of new-born infants as the authors have a very large experience in such matters, and their system is accepted and used in all the children's homes and hospitals in Paris. French physicians in private practice all advise as they do; but from saying to doing is as always a far cry; and so the old-fashioned system of using what they call here the "*petit pot*," or giving the baby a little of everything that is in the cooking pot of its elders, still goes bravely on. But that must not prevent us from saying what is the best system of feeding babies, even if, like these distinguished authors, we preach in a wilderness. They first set forth that all healthy women should nurse their babies. Certainly all intelligent French women admit that woman's milk is the best food for infants; but they have no intention of being the woman that gives it. The universal custom in Paris is to put the child out to nurse. The rich classes hire a wet nurse; but they are the small minority. The great majority send the

babies out to the immense baby farms outside of Paris, where, according to the price paid, they are either raised by a supposed (?) wet-nurse, or else they are brought up on the cow's milk bottle; sometimes asses' milk or goats' milk is stipulated for. Troops of goats and asses are to be seen in the morning going about the streets of Paris, and they are stopped and milked before the client's house, for the few babies that remain in town.

There are many reasons why the French send the babies out of Paris to be raised. That madame don't care to be bothered with nursing is the most important reason; but it must be admitted that she is often the cashier and book-keeper of the establishment, and in the lower classes she must go out to work. In all classes this is an old-established custom; for the truth is that house-rent is dear, and as all live in apartments, room is scarce, so there is no place for baby. Most French families only see their infants from time to time until they are able to walk. But, to give Drs. Tarnier's and Budin's ideas: A nursing mother should always take great care to wash the point of her breast before giving it to the child, and see that the little one's nasal orifices are not closed by her breast. The child's lips and mouth must also be washed after nursing, and sugared water must not be given to it while waiting for the mother's milk to rise, as it is called. As a rule, the baby needs nothing for hours after birth; but, if anything must be given, let it be a little asses' milk in which one quarter of sugared water is put. Notwithstanding that the bottle is not recommended, still it is better to make baby suck, because it is not well that he should be spoiled by showing him, in giving him food with a spoon, that he can get it without the trouble of sucking. Thus early he must be taught to work for his living, or else, later, trouble will be sure to arise. In regard to how often he is to be fed, the rule here is, both in nursing and in artificial alimentation, to give food during the first few months every two or three hours during the day and twice during the night; in all, eight to ten times in the twenty-four hours. After six months the child should only be nursed every

three hours, six times a day, and once or twice at night; but the quantity should be increased. The following is a table of quantity needed for an average child:

	Each nursing. Grammes.	In 24 hours. Grammes.
1st day.....	3	30
2d day.....	15	150
3d day.....	40	400
4th day.....	55	550
1st month.....	60	600
2d and 3d month..	70	600 to 700
4th and 5th month	100	700 to 800
6th month.....	120	800
7th month and on.	150	900 to 1000

The last is about a quart a day.

There is only one sure way for a physician to know if a child is really getting its right quantity of milk: that is to see it weighed *before being nursed and afterwards*. Nurses will often say that the child feeds well, when it may be getting almost nothing at all or losing what it gets on its bib.

The digestion of newly born infants must take place according to a special method that differs from that of adults in important particulars. Its digestive organs are only incompletely developed at birth. Having no teeth, it cannot be questioned that its food must be liquid in form. In the infant's mouth it is certain that no change takes place in the food if milk be given. But what happens if starchy matters are given? Bidder and Schmidt and Burdach held that the salivary glands were not sufficiently developed at birth to work. Even if there was a little saliva, there was no ptyaline; and, there being no ferment, no change of starch into sugar took place in the mouth when starch was given; but the studies of Scheffer and Zweifel show that there is some saliva, and that the parotid gland contains at least a very feeble proportion of ptyaline; but certainly the fact is that the saliva of young infants, at least for the first three months, is very small in quantity, and contains little, if any, of the ferment needed to change starch into sugar. Their food then passes on to the stomach almost, if not quite, unchanged. And here it must be remembered that an infant's stomach is extremely small; according to Fleischmann, its capacity is not more than 45 cubic centimetres at birth; after the first week it rises a little, and at the

fourth week it is 90; at third month only 140; 260 in fifth month; and 375 cubic centimetres at the ninth month. It is almost vertically placed in the body when the infant is erect. These facts indicate a deduction: *i.e.*, that food must be given often and in small quantities.

M. C. Richet, the present Professor of Physiology, Paris, has written lately on the question of infant stomach digestion; he says that the milk is coagulated on arrival in the stomach by the gastric juice much quicker than it is in the adult stomach, owing to greater power of the pepsine in infants; egg albumen, however, is difficult of digestion; gelatinous substances are dissolved by the gastric juice, and milk sugar is transformed into grape sugar, but this last takes place mostly in the intestine. The albuminoids not dissolved in the stomach pass into the duodenum, when the pancreatic fluid transforms their reaction from acid to alkaline, acts upon them by the ferment Kühne calls *Trypsine*, but it *has not the power of changing starch into sugar during the first month of life*, curious to say. Absorption is very active in the intestine, and the bile is poured out in large quantity, making the stools almost without bad odor, as it prevents putrefaction. To sum up the results of Paris practice, it may be stated as a fixed rule here, that no other kind of food but milk is allowed during the *first five or six months*, as it is proved that premature alimentation is badly supported. Even young animals when given any other food than milk, get diarrhoea and a swollen stomach, or belly, but their development is, of course, much more rapid than babies, so they stand it better. As to the best form to give to commence with, it is rather difficult to decide; some use condensed milk, but this is not always well supported, owing to the fact that not enough water is added to it. If given in the first month, use a teaspoonful of it to sixteen of water; twelve of water in third month, and so on, reducing it up to one to four, which is about normal milk, except that it is too sweet. All starch foods are bad, as the rule. Guillot showed at autopsies of babies fed with starch foods, that their intes-

tines were coated with starch, shown by the iodine test turning it to a blue color. Starch foods must not be used in any case before the sixth month, and they are mostly useful in the second year; cane sugar is used to sweeten milk, but infants' stomachs do not support it well, and it is better to use milk sugar, which can easily be had nowadays. It is a curious fact that cows' milk does not suit infants during the first few months, and yet after the fifth month it suits very well. This was proved by giving it to children who were being fed by hand, and comparing their weight with those fed by a wet nurse; it was seen that for the first months the babies fed by the mother increased in weight very much over the ones fed with cows' milk, but *after the fifth month* the ones fed on cows' milk increased in weight faster than those fed by the mothers. To sum up then, this is the system approved of here for infant alimentation: Failing the woman's milk, asses' milk is given, *pure*, for the first two months, if not three; after this time it is considered too light in quality, and cows' milk is used. It is useless to have that of one cow, and a good quality is chosen which is used as follows: Filtered or distilled water is sweetened with 50 grammes of milk sugar to 1000 grammes of water, and three parts of this sugared water is added to one part of milk at the normal temperature of the body. This proportion is gradually and regularly reduced as the months go by, so that at six months pure milk is given and soups and starch foods are gradually added. *Nothing else is allowed before the sixth month.* The results obtained by this method are remarkable, as Professor Tarnier has proved, in raising children born at six months, with the added use of his *couverse* and *gavage*; for before the use of these, all the babies born at six months died. Sixteen per cent. are now saved. At seven months, one-half are saved; at eight months, nearly ninety per cent.

The treatment of typhoid fever by cold baths, often called Brand's system, is again agitated in Paris. Professor Hayem says about it that typhoid being a specific malady, its microbe being now well-known, a specific

treatment should be opposed to it; but as we have no such treatment as yet, we have to be satisfied with empiric methods, such as this of Brand's, which used to be given in all cases, but is now almost abandoned in Paris. Its indications are hyperthermia and adynamia, and it is owing to the action on these symptoms that it does good, but it is not in any way shown that this method gives any better, if as good, results as the means now used in its place. Professor Hayem, who is the Paris Professor of Therapeutics, says he uses, according to indications, only alcohol and sulphate of quinine. Tepid baths, cold lotions and the wet sheet constitute also, says Dr. Hayem, good methods to lower temperature and united with the therapeutic methods mentioned, they are certainly better than an exclusive use of the Brand's method.

Doctor Straus has just been named as a full Professor of the Paris Faculty, in the place of Professor Vulpian, who died last year. The chair is that of "*Professeur de Pathologie comparée et expérimentale.*" It is expected that Dr. Straus will fill it with considerable distinction, as he is a well-known bacteriologist and writer. He was one of those who went out to Egypt during the cholera times, when Koch found his "*komma*" bacillus, and Dr. Straus found it also in healthy intestines.

THOMAS LINN, M.D.

Paris, February 20, 1888.

HERNIA.—From an analysis of 1000 cases of hernia occurring in private practice, De Garmo comes to the following conclusions:

1. That by early mechanical treatment a large percentage of hernias occurring under middle age can be cured.
2. That, while there is no intent to underrate the value of surgical measures in suitable cases, it is believed that the greatest relief to the greatest number can be afforded by the more careful and scientific mechanical treatment of hernia.
3. This end can only be attained by the personal attention of the practitioner instead of allowing such cases to go into the hands of unprofessional and incompetent persons.—*N. Y. Med. Jour.*

ABSTRACTS AND GLEANINGS.

TREATMENT OF DIPHTHERIA. — All the successful treatments of diphtheria are based upon the use of either sulphur or chlorine. We find figuring prominently in prescriptions for diphtheria the tincture of iron and chlorate of potash. But we do not know if the chlorine in these compounds is readily set free in the blood; in fact, we do not know what chemical changes take place in them when once they have entered the circulation. We do know that they must be given in large quantities and often repeated, if we obtain good results from their use. I believe the good obtained from such remedies is due wholly to the fact that they contain agents which we know are destructive to bacteria; but I also believe that we can use the agents in forms far preferable to those mentioned. If, without injury to our patient, we can introduce sulphurous acid or free chlorine into the blood, I see no reason why we cannot destroy the micrococci, arrest their further development and cut short the course of the disease. This I believe we can do, by the use of either the sulphite of soda or chlorine, if we can get sufficient quantity of the remedy into the blood before the micrococci have multiplied too greatly or done too great damage to the blood.

Sulphite of soda readily gives up its sulphurous acid: a substance recognized and employed daily as a destroyer of various bacteria.

The question now arises, does the sulphite of soda so break up in the blood as to yield sulphurous acid? Rabuteau claimed that it did not, and wrote an elaborate article in support of his belief. More recent experiments have proven the contrary; and sulphurous acid is found in the urine of patients taking sulphite of soda, six hours after taking a dose. Here, then, I believe we have not a specific but a remedy, which if employed in time will cut short the disease, and which we can safely use as a prophylactic; and by its use prevent the spread not only of diphtheria, but also of scarlet fever, and possibly other contagious diseases. The remedy is harmless, and may be given in doses of ten grains or more

every three or four hours. It may cause the bowels to act too freely, in which case we can diminish the dose or control the bowels by other remedies.

In cases where we may have been called in late, or where the disease assumes a malignant type, I believe we have a more potent agent in chlorine, given as follows:

Take chlorate of potash $\frac{3}{4}$ ij, powder finely, and put into a twelve or fourteen ounce bottle; to this add 3ss of hydrochloric acid, and then stopper the bottle. The acid coming in contact with the chlorate of potash, chlorine gas is liberated and fills the bottle. Now pour into the bottle $\frac{3}{4}$ ii of glycerine, replace the stopper quickly and agitate, thus allowing the glycerine to take up the chlorine. Then fill the bottle with water and cork tightly. We now have the chlorine in solution, and can give from one to two teaspoonfuls of the mixture, p. r. n. This I believe will rarely fail to destroy the micrococci, even though they be quite numerous. The chlorine is a powerful heart stimulant, and must be given with some caution, and would probably be unsafe as a prophylactic, and we hold it in reserve for use in such cases as before indicated.

Besides these two agents, the pharmacopoeia abounds in drugs which may prove equal or superior to either of those selected.

Besides this special treatment, designed to attack the micrococci, we must remember that diphtheria is a disease especially characterized by great constitutional depression, and the patient should be stimulated early and freely. For this purpose good whiskey or brandy is preferable, and may be given in considerable quantities. We should also make use of such local applications to the throat, in the form of sprays, as may seem most beneficial.

Tracheotomy, or intubation, may be resorted to by those so circumstanced as to avail themselves of them.—JONES in *Atlanta M. & S. Journal*.

[Of the virtues of nascent chlorine we are fully aware; our experience of thirteen years in its use having convinced us that no other agent known

to us has equal power in destroying the specific germ of diphtheria. But we must express our regret that Dr. Jones has not called attention in his able paper to the vital importance of the *early, local germicidal treatment*. His pathology is also at fault, as in attributing the phenomena of the disease to micrococci circulating in the blood, he overlooks the importance of local treatment. For instance, when evidence of profound toxæmia exists, and disappears completely after the naso-pharynx is cleansed of its septic contents, without any internal medication, it is hard to avoid the inference that the toxic symptoms were not due to micrococci in the blood, but to the circulation in this fluid of the toxic products (ptomaines) of these organisms.

Later in the progress of the case a true ingress of the disease germs to the blood takes place, and after that, local disinfection fails to give such beneficial results.

Whether the blood can then be so saturated with chlorine as to be rendered aseptic, is exceedingly doubtful. Indeed, if the heroic use of calomel shall fail to warrant Daly's enthusiastic recommendation, we have no remedy for this state of affairs.—W. F. W.]

STATISTICS OF ACUTE ARTICULAR RHEUMATISM.—In the Report of the Collective Investigation Committee of the British Medical Association, we find the following statistics concerning rheumatism:

Death rate in total abstainers,	5.36
“ “ “ temperate persons,	3.74
“ “ “ intemperate “	8.82
Per cent. of heart complications in total abstainers,	48.99
Per cent. of heart complications in temperate,	45.03
Per cent. of heart complications in intemperate,	46.87

The greatest prevalence of the disease was shown to occur in high, dry, exposed localities; next to this in low damp and confined places.

Tonsillitis occurred as an antecedent in 24.12 per cent.; scarlet fever in 13.43 per cent.; chorea in less than 2. per cent.

The influence of treatment upon the average duration of the disease was as follows:

Salicylates,	19.03 days.
Salicylic acid,	10.7 “
Salicin,	23.92 “
Alkalies,	36.30 “
Alkalies, followed by salicylates,	22.22 “
Salicylates and alkalies combined,	34.92 “
Salicylates and then alkalies,	30.64 “
Salicin and alkalies,	24. “
Salicylates and potas. iod.,	46. “
“ “ iron,	27.7 “
“ “ tonics,	18.68 “
Alkalies and opium,	18.75 “
Salicylates and then iron and quinine,	20.33 “
Salicylates and opium,	80.3 “
“ “ blisters,	15.83 “
Alkalies and then quinine,	35. “
Salicylates and quinine,	31.6 “
Salicylates and tonics,	8. days.
“ alone,	8.65 “
Salicin,	9.28 “
Salicylates and opium,	9.9 “
“ iron and quinine,	10. “
“ and quinine,	10.5 “
Alkalies and quinine,	10.75 “
Salicylates, followed by alkalies,	10.78 “
Salicylates and potas. iod. bringing up the list with an average of 17.14 days.	

The speediest disappearance of pain ensued from the use of salicylates and opium—average, 8.45 days; the salicylate group follow, in 10 + days; and the salicylates and potas. iod. come last, with 24.16.—*Brit. Med. Jour.*

[This, however, is in accordance with our own experience in the use of iodide of potassium. This drug is of little utility in acute rheumatism, but of the greatest value in cases which have been prolonged until they threaten to become chronic. At this time, a rapid cure follows the administration of this drug, which may have been previously used in the same case without benefit. Hence the long duration of cases treated by it in the above table may be explained, as well as the favor in which it is held by many who have succeeded with it when “everything else had failed.”]

ABORTIVE TREATMENT OF SYPHILIS.—Jonathan Hutchinson opens his paper upon the above subject as follows:

“ For many years past, I have been in the habit of assuring patients who came to me with indurated chancrea but without any other symptoms, that they would in all probability wholly escape

the secondary stage. As years have gone on, I have found myself holding out this hope with increasing confidence. My treatment has been almost uniform, and has consisted in giving mercury in the form of gray powder in one grain doses, three times a day at least, and more frequently, if the symptoms did not more quickly yield. I have always told the patient that he must take these pills for six months at least. At the end of six months, if the treatment is left off, there not very infrequently follows in three weeks or a month an erythematous general eruption, never severe, never papular or scaly, and always vanishing in a few days if the mercury is resumed.—*Brit. Med. Jour.*

THE ORAL WHIFF.—Cheesman relates the following case in the *New York Medical Record*: A gentleman, aged thirty-three, had always enjoyed excellent health, and was quite athletic during early manhood, but inherited a neurotic temperament. Had smoked considerably, and been much harassed by business during the season of 1886. When shooting early in September, and in pursuing a grouse through heavy underbrush, he became considerably blown. Sitting upon a fallen tree to recover wind, he observed that the sound of his breathing, particularly in expiration, was intermittent, giving a puff at each beat of the heart. The expired air, instead of leaving the mouth in an even, prolonged current, came in a series of whiffs which may be represented quite accurately by the sounds *huh, huh, huh, huh*. These were loudest at the commencement of expiration, and became fainter toward its close. Inspiration was similarly broken, but the interruptions were less marked. As the heart's action was quieted down, this pulsation of the breath became less and less noticeable, till it finally ceased. A second run, however, reproduced it exactly as before. At no time was the subject conscious of any pain, or shortness or difficulty of breathing. As he had never observed the phenomenon before, even during the exertions of his old athletic work, he sought medical advice.

Examination of the heart discovered no abnormality whatever. Its sounds

were clear; no murmur could be found over any part of the chest. The action was, however, rapid, and complete abandonment of tobacco and coffee was advised. The respiratory sounds were also even and regular. I could not detect the puff which was described, but as the patient said that exertion would bring it back, I asked him to run up and down stairs several times. The sound was then plainly heard by the ear held about a foot distant from the patient's open mouth. I listened with the stethoscope over the chest, but could not distinguish it there at all. When the instrument was applied along the trachea, however, it came out loudly, and had the characters already described. Drummond's "oral whiff" as a sign of thoracic aneurism came to my mind, and therefore, though there were neither symptoms nor physical signs of this disease, I re-examined for it carefully and repeatedly, but with an entirely negative result.

This subject now enjoys excellent health, but exertion always reproduces the puff in his breathing. When carefully listened for, it can also be heard even when he is at rest. He has often heard it faintly *when lying in bed at night*.

EARLY SYMPTOMS OF TUBERCULAR MENINGITIS.—Elsner, in the *Buffalo Medical and Surgical Journal*, calls attention to the following symptoms of the earlier stages of tubercular meningitis in children: First—Altered disposition. Second—Headache. Third—Vomiting and constipation. Fourth—Cerebral maculae. Fifth—Ptosis and facial paralysis. Sixth—Convulsions. Seventh—Pulse and fever.

DR. JOHN C. PETERS, in the *Annals of Hygiene*, suggests that when the streets of a city are torn up, the escape of noxious gases should be rendered harmless by sprinkling a solution of bromine, one pound to 250 gallons of water, wherever these excavations are in progress.

GASOLINE FOR EPITHELIOMA.—An old woman had for 12 years a tumor on the bridge of the nose, close to the corner of the eye. This tumor had always been regarded as an epithelial cancer and was so pronounced by all the

physicians who had examined it. I have observed the growth for many years and always considered it malignant. Its history was that of epithelioma. It began as a small pimple or speck and very slowly grew in size and spread in area. At times it was very red and itched intensely. Its surface ulcerated and secreted pus. When I last saw the tumor about three years since, it was in circumference about the size of a nickel and considerably elevated above the surface of the surrounding skin. Early in February she hailed me on the street to show me that her "pet" was gone. I was much surprised at finding not the slightest trace of the tumor left, nor even a scar in the skin! She told me that she had used nothing but gasoline on it, applied according to her statement, as follows: She took a little wad of cotton, wet it with gasoline and placed it upon the tumor and allowed it to remain for a few minutes and then threw it off, repeating the operation from day to day until the whole growth was gone. The suppurating surfaces dried up and the tumor simply shrank away. Gasoline is not a caustic, nor even an irritant to amount to anything. There can be no doubt but that the tumor, whatever it was, was literally cured by the application of gasoline.—*Williams, in St. Louis Med. and Surg. Journal.*

REVIEWS AND BOOK NOTICES.

NASAL POLYPUS, WITH NEURALGIA, HAY FEVER AND ASTHMA, IN RELATION TO ETHMOIDITIS. By EDWARD WOAKES. Published by P. Blakiston, Son & Co., Philadelphia. 12mo, pp. 140.

The distinguished senior aural surgeon of the London Hospital calls attention to the hitherto neglected subject of ethmoiditis. That general medicine is greatly indebted to the labors of the specialist may be seen by the following extract from the work before us:

"There is a form of headache, of a more or less neuralgic type, associated with ethmoiditis, which may be termed basal headache, from the fact of the situation of the pain corresponding pretty accurately with the base of the skull.

Thus it affects the back of the eyes, the temples, as well as the mastoid and occipital regions on both sides. Occasionally one side of the head only is thus affected; but in either case it is accompanied with a sense of weight at the back of the head. There are usually present, when it acknowledges a nasal origin, symptoms directly referable to the nose: such as a sense of stuffiness, profuse discharge, sneezing, etc."

It is worthy of note that those whose special work lies in the mouth and nasopharynx have reduced greatly the field of essential trigeminal neuralgia. In fact, we understand that Garretson denies the existence of such a neuralgia; claiming to find in every case a material cause within the reach of the surgeon. This leads us to refer the work of Woakes to the general practitioner rather than to the specialist.

A STUDY OF THE HISTOLOGICAL CHARACTERS OF THE PERIOSTEUM AND PERIDENTAL MEMBRANE. By G. V. BLACK, M.D., D.D.S. Published by W. T. Keener, Chicago. 8vo, pp. 138.

The volume is almost entirely a record of the personal observations of the author, who is the Professor of Pathology in the Chicago College of Dental Surgery.

The style is unusually clear for a work treating of so strictly scientific a topic. The recent revival of the ancient custom of replanting teeth gives unusual interest to the study of the peridental membrane, as the failure of a large proportion of the cases appears to be due to some mal-condition of this membrane.

The book is another example of the best form of modern book-making; the paper, typography and illustrations deserving more than a passing notice.

CHEMICAL ANALYSIS OF HEALTHY AND DISEASED URINE. By T. C. VAN NIYS. Published by P. Blakiston, Son & Co. 8vo, pp. 187. Price, \$2.00.

Dr. Van Niys is Professor of Chemistry in the Indiana University. The evidence of experience and ability as a teacher is to be seen in the clearness and precision with which the various manipulations are described. The work embraces the recent investigations of

Zuelzer, Lepine and Kieldahl upon the excretion of nitrogen. Pavy's pellets for Fehling's tests are not mentioned. With this exception, the work is brought down to the present, and forms an admirable guide to those who wish a thorough knowledge of the chemical examination of the urine.

RECTAL AND ANAL SURGERY. By EDMUND ANDREWS, M.D., LL.D., and E. WYLLYS ANDREWS, A.M., M.D. Published by W. F. Keener, Chicago. 8vo, pp. 111.

The object appears to be primarily an expose of the "methods" of the itinerants who have of late been traversing the country and transmuting "piles" and "pockets" into piles of money in their own pockets.

One effect has been to compel the profession to pay more attention to this hitherto neglected specialty. Another has been the introduction of a really valuable method of treating hemorrhoids.

The history of this method is exceedingly interesting. To Dr. Andrews is due the credit of having discovered the secret and put a stop to the sale of "district rights."

The injection method was looked upon with disfavor by the English specialists, Allingham in particular, and it is due to the efforts of American writers that it has won its place.—W. F. W.

DR. TAYLOR, of *The Medical World*, is to be credited with providing for the profession the only Visting List in existence which can be presented as evidence in a court of law. With this he has published a Ledger of Monthly Balances and Index of Accounts. The price of the set is \$2.00. For this sum the physician receives a complete set of books for his accounts, which yet can be carried in the pocket.

THE EFFICACY OF COCA ERYTHROXYLON.
Published by Mariani & Co.

In this the publisher has collected the endorsements of Mariani's coca-wine by prominent physicians in this country, with practical notes upon the uses of this drug. In truth, the array of notable names is a strong one; far too strong in standing, as well as in numbers, to allow of the charge of in-

terested motives. The book may be obtained by applying to the publishers.

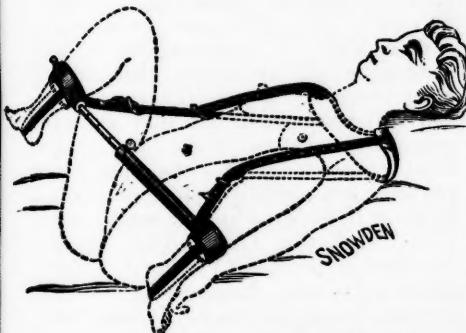
MESSRS. W. H. SCHIEFFELIN & Co. send us their revised treatise on Salol; containing valuable information concerning the uses of this new remedy.

MISCELLANY.

DESTROYING MICRO-ORGANISMS. — In the present state of our knowledge, it is hopeless to expect to destroy micro-organisms, and more especially their spores, in the tissues of the lungs by the inhalation of germicide remedies. Antiseptics may, perhaps, reach micro-organisms lying in the mucus or pus on the free surface of the bronchi, in a sufficiently concentrated form to destroy them. It is conceivable, though not probable, that the same may be true in the case of those lying free in the alveoli, or very superficially placed in the tissues. Micro-organisms more deeply placed, and especially those in areas of consolidation, as in tubercle, can only be reached by germicides introduced into the fluids which bathe the tissues. And as these fluids are in constant circulation it is necessary to obtain even a local action of any long duration, that the whole of the fluids of the body should be impregnated with a percentage of the remedy sufficiently high to enable it to act as a germicide. This, in the case of all germicides hitherto tried, is incompatable with the life of the host. Taking a man of ten stone, it is a low estimate to put the total weight of blood and lymph at fifteen pounds, disregarding the fact that all the so-called solid tissues, with the exception of bone and epidemic structures contain an average of 60 to 70 per cent. of water. Fifteen pounds contain 105,000 grains. To make this fluid into a solution of 1 to 100,000 of corrosive sublimate—far too weak a solution to kill spores, though they might not grow in it—would require a dose of more than one grain, that is two ounces of liquor hydraygri perchloridi of the *British Pharmacopæia*. To make a one per cent. solution of carbolic acid would require a dose of more than two ounces. This difficulty was ably pointed out by Koch,

in his article on disinfection.—*Zymotechnic Magazine*.

A MODIFICATION OF THE "PERINEUM DISTENDER" TO AVOID ITS INTERFERENCE WITH RESPIRATION.—Dr. W. W. Keen exhibited this apparatus at a recent meeting of the County Medical Society and said: "In the frequent use of the 'Perineum Distender' I have found the strap which passes under the nape of the neck very objectionable. This strap flexes the legs and supports their weight. While doing so the weight of the legs pulls the head and neck strongly forward, and thus often seriously embarrasses the respiration.



"To avoid this, I have had the wooden shoulder-piece of the old Day's apparatus for fracture of the clavicle slightly shortened, and find it answers admirably. Under its loops, over each shoulder, two straps are passed, with a buckle turned wrong side foremost at one end. The other free end, after passing through this buckle in the arm-pit, then is buckled to the cross-piece between the legs. By this means the pressure is brought on the shoulders instead of the neck, and respiration is entirely unimpeded.

"I have also had two straps attached at right angles to the straps for the legs. By this means the leg-straps can be secured above the calf as usual or at the ankle. In the latter position the new straps, by passing under the foot-soles, more completely flex the legs, and get the feet out of the way of the operator."

EMPHYSEMA PULMONUM.—Prof. Rudolph Virchow made a report on the above subject before the Berlin Medical Society last December, and exhibited a number of specimens. He said Laennec

had described two forms of emphysema, the vesicular and the interlobular. In the first of these forms he knew that there occurred a gradual loss of lung-tissue, followed by atrophy of the septia, and that large spaces formed in this manner, developed into cavities under favorable circumstances. Laennec also thought that this shrinking of the lung-substance was the cause of the dyspnoea and the disturbance of the circulation shown by the increased dilatation of the veins, and the gradually augmented cyanosis.

If we contemplate the preparation of an emphysematous lung, (which has been expanded, dried and cut through) we see large cavities instead of the smaller ones made by the alveoli. This condition always develops in isolated places, and we see normal tissue in the immediate vicinity. On closer inspection these cavities show that they are not only dilated alveoli, but that they always represent a number of alveoli which are aggregated together in a single cavity. If the process advances, the cavity becomes larger, and the entire lobule goes gradually over into a similar condition. If the thorax be opened we see the lobule, which is attacked, projecting over the surface of the lung; in some cases, others in particular parts, form little cysts projecting from the lung surface. In longer duration of the process, the septa are not spared and the cavities of the adjacent lobules blend together. Such lungs go gradually into a system of cavities in which only strips of the old septa remain.

The old representation, which was also partly accepted by Laennec, sprang from the assumption that this confluence depended upon a tearing of the alveolar walls, and that their tearing was due to the increasing pressure on the walls, which was caused by the entrance of air. Many conditions seem opposed to this assumption. In the next place, no one has ever observed any form of hemorrhage in connection with such conditions. There is, moreover, an objection to this, in fact, that no one can produce tearing of the alveolar walls by mechanical distension. The air which is driven out through this original opening can not gain entrance

into the neighboring alveoli, while in a lung, in a perfect condition for respiration, the alveoli are already filled with air. In this way no union of two kinds of alveoli can occur. We also notice that as soon as a rupture results, it is in the form of an interlobular emphysema.

Laennec held that the changes in question, were those of the disease, which he has described by the name of "dry catarrh," and he was of the opinion that, in individuals who had already complained of chronic catarrh, they had an acute catarrh engrafted thereon. In this connection there is an element which rightly claims a prominent place, namely, that the air which has come into the diseased part does not come out again, and, also, that a deficiency remains in the expiratory process. Laennec did not know, what was made quite clear later, that generally in condition of chronic bronchitis, a closure of the little bronchi could occur, but, that when this obstruction had a certain duration, an atelectasis was developed, and exactly contrary to what occurs in this disease, the incarcerated air disappears by absorption. When this atelectasis continues longer, then atrophy of this section of the lung gradually takes place. Emphysema can only originate when, at the least, a certain part of the air passages are passable, so that fresh air can always gain admittance. Recent observers, particularly those who have come nearer to the question experimentally, have failed because they have sought to prove a narrowing of the principal air passages; and, in consequence, a difficulty of expiration. There is, however, no case of emphysema known where from the commencement, there was an accompanying change through large sections of the lung.

If there is truly a narrowing of the nasal cavity, or the larynx, or a large bronchus, as the cause of the emphysema, one must also find the entire field of this canal in a similar condition of dilatation. There are cases enough in which there are stenoses of various kinds in the different sections of the respiratory tract, but they are local (at least those in which emphysema is observed), while on the contrary the

greater number of the emphysematous have no change in these principal parts of the respiratory tract.

The contemporary and successor of Laennec, Andral, maintained that there was a large number of individuals in whom the appearance of the emphysema could be traced back to a very early youth, and he was inclined to believe that in these cases the tissue of the lung must show what the changes mean. Another consideration was now brought into the discussion of this question which was rather a hinderance to its solution.

Louis, in Paris, Andral himself, and later, Rokitansky, indicated a form of emphysema which was connected with a kind of hypertrophy. The lecturer would not deny that such cases occur, but they occur very seldom and still more rarely do they extend over a large surface of the lung. We must acknowledge that the pure emphysema is a condition which deals not so much in hypertrophy, but much more of a rarefaction (Rokitansky) or a necrobiotic process (Virchow). The tissue melts away, disappearing in large sections leaving no trace. It must fall completely to pieces and be either expectorated or be removed by absorption.

This general emphysema is in no way a frequent appearance, Prof. Virchow found 0.3 per cent. of all cases in the list of cases received in 1877-85 in the Charité Hospital, in which the clinical diagnosis of emphysema had been made.

Andral raised the question how far backwards can we follow emphysema? It sometimes occurs that the section of the lung, which is affected by emphysema, is quite colorless, that is, the carbon is absent. Now it is known that this is first found in very marked quantities about the fifth year. Hence, he surmised that the emphysema commenced previous to the fifth year.

THE STUDY OF INFECTIOUS DISEASES.
—Dr. Sternberg, in his address before the American Public Health Association, made the following timely suggestions:

The exotic pestilential diseases are the levers which move corporations to make sanitary improvements. But for

sanitarians, aside from their effect in this way, they are of secondary importance. The number of victims they claim is small compared with the number who succumb to certain indigenous or naturalized infectious diseases which are equally subject to control by well-known sanitary measures. The chief aim of the American Public Health Association should be to ascertain what measures are most effectual for the restriction of their endemic maladies, such as typhoid and malarial fevers, and for the banishment of all diseases in which the contagion is given off from the persons of the sick, as scarlet fever and small-pox. So far as diseases of the last mentioned class are concerned, we know how they can be stamped out: namely, by isolation of the sick and disinfection of all infectious material; and, in the case of small-pox, by vaccination. Our main mission is, therefore, to insist upon the thorough execution of these measures.

But our mission is not only to teach the public how to guard against infectious diseases by quarantine restrictions, isolation of the sick, disinfection, and municipal sanitation, but also to teach them the principles of personal hygiene. Not only will their individual susceptibility in the presence of an epidemic depend largely upon their personal habits and mode of life, but we must show them how often organic and functional diseases of the various organs essential to life are induced by excesses in diet, improper food, and intemperance. A most important part of our work in the future should consist in popularizing information of this kind.

The association cannot afford, on account of its limited resources, to offer prizes for special investigations; but small appropriations should be made to cover the necessary expenses for carrying out special investigations in sanitary science.

In Baltimore, New York, Boston, Philadelphia, Brooklyn, Ann Arbor, and other cities, well equipped laboratories are in operation or in process of construction, where bacteriological investigations can be made.

The work of the Committee on Disinfectants is practically completed.

Other special investigations should now be undertaken by the association. A special fund should be raised by voluntary contributions for this purpose. A biological investigation of the water-supply of cities and towns of the United States would be very desirable to be undertaken at present.

The prophylaxis of infectious diseases by inoculation of attenuated virus is also a promising field of study.

ELECTRICAL TREATMENT OF UTERINE FIBROIDS AFTER APOSTOLI.—An Edinburgh correspondent writes that Keith accepts the teachings of Apostoli. "Keith and son in less than five months have applied electricity in strong, and accurately measured doses more than 1,200 times upon more than 100 patients, the majority being cases of uterine fibroids. The labor of these operations was very great, but it opens out a study which increases daily in interest. Several cases came to them for hysterectomy in uterine fibroids. After treatment by Apostoli's method these women have all gone home without operation, with menstruation almost normal and improving after their return. In every case the tumor was reduced in size, the pain gone and they enjoyed the freedom to walk about and live itself in a way to which they had long been strangers. In one case only has there been a return of hemorrhage. The tumor had gone down two-thirds, and unwilling to detain her longer in town she was permitted to go home too soon. Should these improvements be permanent, and he has every assurance from the experience of Apostoli that they will be, the field of hysterectomy is reduced to the narrowest possible limits. He would consider himself guilty of a criminal act, were he to advise his patient to run the risk of her life before giving this treatment a fair trial. Dr. Playfair has been experimenting industriously on this subject since his return from the summer holidays. He is not quite decided concerning it in all respects, but does not hesitate to declare it a therapeutic measure of much power and considerable promise. I doubt however, if it will fulfil Apostoli's enthusiastic estimates. He has found it very valuable in membranous dysmen-

orrhea and chronic endometritis, with glairy glutinous discharges. One or two of his cases have been quite remarkable and have yielded to two or three applications. Playfair has had one remarkable case of rapid absorption of a large fibro-myoma under negative electro puncture. The case had been under his observation for years, by the application of currents of 100, 150 and 200 milliamperes, it has been reduced from the size of a large human head to that of a small orange. There was, however, considerable pyemic and constitutional disturbance which at one time caused considerable anxiety. If not carried out with care and discrimination, this electrical treatment may cause serious accidents."

A NEW REMEDY FOR PELVIC INFLAMMATIONS.—Buckmaster writes to the New York *Medical Journal* of a new remedy for pelvic inflammations. In a case of pyosalpinx, he saturated a pledget of cotton with a solution of ichthhyol, about one per cent., and placed it against the mass. The next day the patient was able to attend to her household duties.

He reports having used the sulphichthylate of ammonium in seven cases of intractable pelvic inflammation, and with all obtained relief; in four with particularly happy results.

MÜTTER LECTURESHIP.—Dr. Allis has begun a course of lectures on "Surgical Pathology of the Articulations," which are delivered on Tuesday and Friday evenings at eight o'clock, at the College of Physicians, northeast corner of Thirteenth and Locust streets, from March sixth to April sixth. The Fellows of the College and medical profession are invited.

—Officers of the Philadelphia Obstetrical Society for the ensuing year: *President*, Thomas M. Drysdale, M.D.; *Vice-Presidents*, Charles H. Thomas, M.D., J. C. Da Costa, M.D.; *Secretary*, J. M. Baldy, M.D.; *Treasurer*, Alfred Whelen, M.D.; *Curator*, T. Hewson Bradford, M.D.

EVENING CLINICAL LECTURES.—The Faculty of the Polyclinic have organized a course of Clinical lectures, the first of which was given Feb. 28th, by Dr. Henry Leffmann, on "Office

Testing of Urine." Members of the profession are invited to attend.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM FEBRUARY 12, 1888, TO FEBRUARY 25, 1888.

LT-COL. EDWARD P. VOLLM, SURGEON.—Granted leave of absence for four months, with permission to go beyond sea, and to apply for an extension of two months. S. O. 41, A. G. O., Feb. 20, 1888.

CAPT. E. F. GARDNER, ASSISTANT-SURGEON.—Granted leave of absence for one month and mileage. S. O. 41, A. G. O., Feb. 20, 1888.

CAPT. WM. H. ARTHUR, ASSISTANT-SURGEON.—Leave of absence extended two months. S. O. 35, A. G. O., Feb. 13, 1888.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY FOR THE WEEK ENDING MARCH 3, 1888.

SURGEON T. C. HEYL.—Orders to the Receiving-Ship "St. Louis" revoked.

SURGEON C. H. WHITE.—Present duty continued to Oct. 1, 1888.

SURGEON T. H. STREETS.—Ordered to the Receiving-Ship "St. Louis."

SURGEON M. C. DRENNAN.—Ordered to the Receiving-Ship "Vermont."

SURGEON G. R. BRUSH.—Detached from the Receiving-Ship "Vermont," and to the "Pensacola."

PASSED ASSISTANT-SURGEON VICTOR C. B. MEANS.—Detached from Naval Hospital, New York, and to the "Pensacola."

MEDICAL INSPECTOR A. A. HOEHLING.—Detached from the "Pensacola," and wait orders.

PASSED ASSISTANT-SURGEON G. E. H. HARMON.—Detached from the "Pensacola," and wait orders.

PASSED ASSISTANT-SURGEON J. M. EDGAR.—Detached from the "Pensacola," and wait orders.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED MARCH 3, 1888.

STONER, G. W., SURGEON.—Detailed as chairman of Board for physical examination of officers and candidates, Revenue Marine Service, Feb. 28, 1888.

URQUHART, F. M., PASSED ASSISTANT-SURGEON.—Detailed as recorder of Board for physical examination of officers and candidates, Revenue Marine Service, Feb. 28, 1888.

KULLOCH, P. C., PASSED ASSISTANT SURGEON.—Relieved from duty at Pittsburgh, Pa., ordered to Marine Hospital, San Francisco, Cal., March 2, 1888.

CURRINGTON, P. M., PASSED ASSISTANT-SURGEON.—Relieved from duty at Marine Hospital, San Francisco, Cal., ordered to assume charge of service at Pittsburgh, Pa., March 2, 1888.

KINYOUN, J. J., ASSISTANT-SURGEON.—Granted leave of absence for twenty days, Feb. 28, 1888.